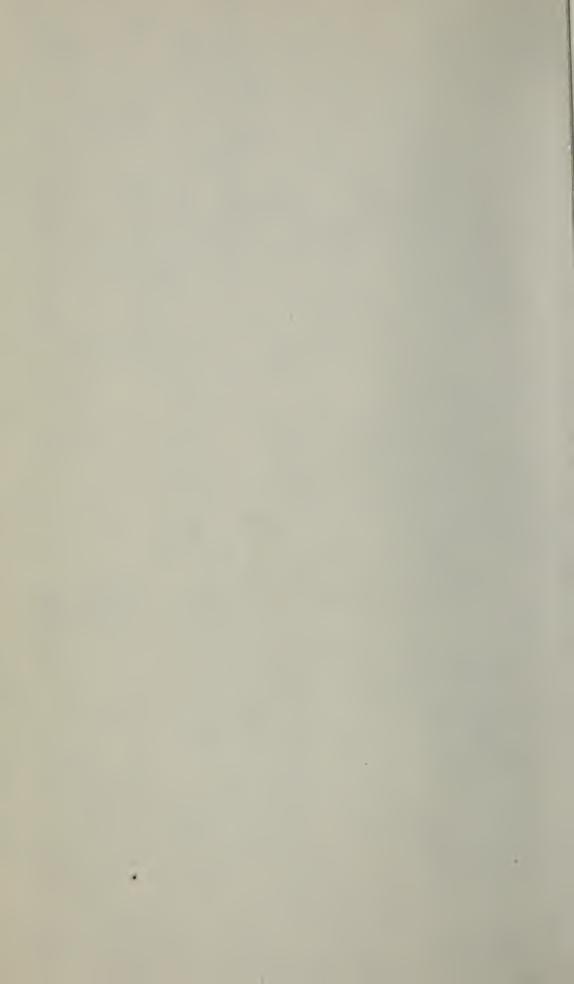


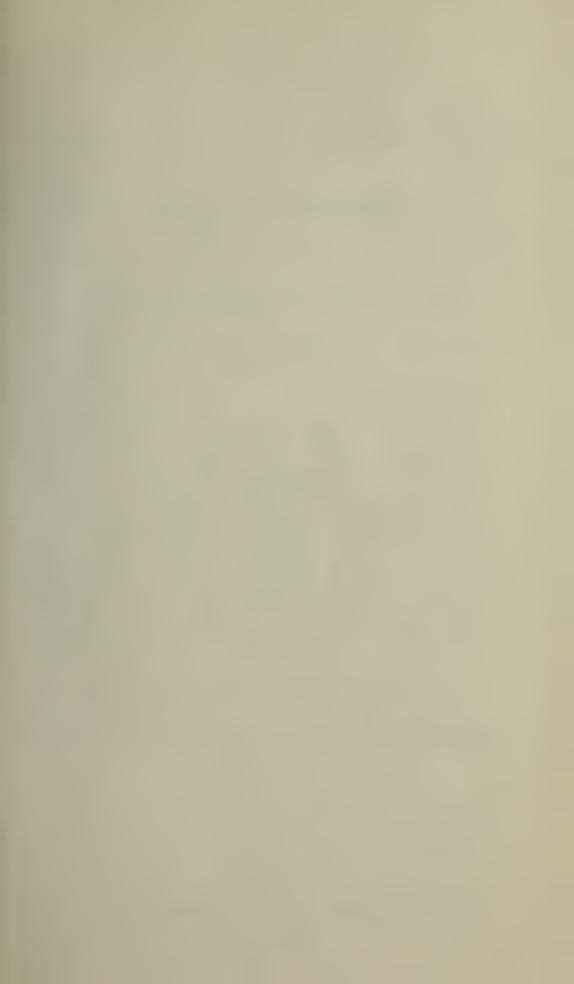
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AMERICAN MEDICAL

INTELLIGENCER.

A CONCENTRATED RECORD OF MEDICAL SCIENCE AND LITERATURE.

July, 1841, to July, 1842.



BY ROBLEY DUNGLISON, M. D.,

PROFESSOR OF THE INSTITUTES OF MEDICINE IN JEFFERSON COLLEGE OF PHILADELPHIA, LECTURER ON CLINICAL MEDICINE, AND ATTENDING PHYSICIAN AT THE PHILADELPHIA HOSPITAL, SECRETARY TO THE AMERICAN PHILOSOPHICAL SOCIETY, &c., &c.

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No. 1.

For the American Medical Intelligencer.

ART. I.—TREATMENT OF RHEUMATISM BY INOCULATION WITH MORPHIA.

BY Q. GIBBON, M. D.

Salem, N. J., May 19th, 1841.

To Professor Dunglison.

Dear Sir,—A wish to present to the profession what I deem a useful fact, has induced me, though at the risk of intruding upon the time of one with whom I have not the pleasure of a personal acquaintance, to offer for your

consideration the following remarks:-

Having seen in your work upon "New Remedies," published some time since in the "Library," an article upon the beneficial effects derived from inoculation with morphia in the treatment of local diseases, I determined to make a trial of the plan in local rheumatism, an affection which I have frequently found great difficulty in managing. I was not long afterward called to treat an obstinate rheumatic affection of the knee-joint, which had resisted the usual general and local means. One quarter of a grain of the sulphate of morphia was inserted, by means of punctures, in the skin over the affected part, twice a day for two days, with the most marked and satisfactory results. The patient, who for two weeks previous had suffered extreme pain upon the slightest motion of the limb, was, at the expiration of this period, able to walk with slight inconvenience, and upon the third day, threw aside the crutch with which he had before hobbled across his room. Friction with stramonium ointment, two or three times repeated during the fourth day, removed all remaining disease in the affected part.

The next case was a rheumatism of the wrist, in which no previous treatment had been practised. In this case, which was recent, two applications of the morphia, upon two succeeding days, so effectually removed the pain and tenderness, as to allow of the free use of the hand on the third day.

The third trial was made upon an obstinate rheumatism of the knee-joint, remaining after the subsidence of general rheumatism. The patient, a robust boy of sixteen, after having been rendered motionless for several days by a severe attack of inflammatory rheumatism of the whole system, recovered under the free use of tart. antim. opium, and colchicum, with the exception of the knee in question, which remained exquisitely painful, and tender upon pressure in one spot of about an inch in diameter upon its inner side. The insertion of a quarter of a grain of morphia, produced in a few hours a decided impression upon the pain, and by the second day, the symp-

toms were so far mitigated as to permit free motion in the part. This patient

recovered rapidly without any farther medication.

A fourth case, which had resisted acupuncturation, assisted by the free use of the stramonium ointment, yielded upon the fourth day from the first application of the morphia, the patient expressing much satisfaction at the

effects of the remedy.

Since treating the above cases, I have had an opportunity of testing the good effects of morphia in several other instances, and with results which induce me to entertain a very favourable opinion of its remedial powers. Judging from the limited experience which I have as yet had of its application, I should think it best adapted to the recent and active grades of the disease. I think it proper, however, to state that I have met with one case of rheumatism in which, though to all appearance a favourable one for its successful exhibition, the morphia failed in producing its beneficial effects.

For the American Medical Intelligencer.

ART. II.-LUSUS NATURÆ.

To Dr. Robley Dunglison.

Dear Sir,—I send you for publication, should you deem it worthy of an insertion in your valuable medical journal, a hastily drawn up description of a remarkable Lusus Naturæ, which occurred in this county, in Nov. 1840.

Yours, &c.,

WM. S. THRUSTON, M. D.

Mathew's Court House, Va., April 20th, 1841.

Medical and physiological works abound with numerous cases of very novel and singular developments; with instances of monstrosities assuming every form and shape, both in the inferior and superior orders of creation. Cases of excess, and deficiency of parts, are found to be recorded in every physiological work; but I doubt exceedingly whether there is so remarkable and novel a case on record in any of the American or European publications, similar, in all its bearings, to the one which is now presented to the medical profession;—one so remarkable in its conformation, or singular in its developments; or one so well calculated to excite the interest and curiosity, to elicit the speculations and opinions of the medical and physiological inquirer after truth, and to fill with astonishment and wonder the superstitious and uninformed spectator, as this admirable specimen of one of nature's freaks.

A free negro woman, in the county of Mathews, Va., was delivered on the night of the 29th of November, 1840, of three children. One of them, a remarkably fine child, is still alive, doing well, and apparently in perfect health and perfect in its conformation. The other two are as large as ordinary twin children generally are, and present the following singular appearance. There are two heads and necks, perfect in their organisation; the head of one rather larger than the other, and somewhat deformed or injured from improper delivery; four upper and two lower extremities, two chests, one abdomen or body, one umbilical cord, and one male organ of generation. There is to all appearance a perfect conformation of parts from the umbilicus to the apex, except about the chest, which is a little remarkable in its formation. They are united sidewise, from the clavicle to the umbilicus; the right chest of one, and the left of the other, appear deficient, or rather they seem to have grown into each other; consequently the remaining portions project out somewhat unnaturally. The right and left arms of each are thrown over each other's shoulders and back, presenting the appearance as if they were embracing. The other two arms hang in their natural position.

From the umbilicus downwards, they are one; and to all appearance there is a perfect development of parts, except the organ of defecation, which is somewhat imperfect, or rather nearer the scrotum than natural. It is thought that they were alive just before birth; they certainly possessed vitality during some portion of their uterine existence, every part being well proportioned in size, &c., and evidently nine months children. There being two chests, it is reasonable to suppose that there must be two hearts, and two sets of pulmonary organs, and one set of digestive apparatus. It seems to me, that so perfect a development of external parts could not have taken place without a corresponding development of the internal organs; or that two distinct children, as they appear to be, from the umbilicus to the head, could not be supported by one circulating system, and one set of pulmonary There being one abdomen, it is not, I presume, dealing too much in speculation, to suppose there must be only one set of intestines or digestive apparatus; certainly if there be two, they must have, or rather open into, one common duct, the rectum. This, however, is mere speculation, as I have submitted them to no anatomical examination, designing at some future day to present them to some medical museum. I have them at present in a perfect state of preservation in alcohol. Could this very singular lusus naturæ have been delivered alive, and I doubt not its practicability, had the case been in the hands of a skilful accoucheur, and lived to maturity, we should have had presented to us the singular anomaly of two beings in one, and supported upon only two lower extremities. The celebrated Siamese twins, who have traversed every portion of the civilised globe, gaining notoriety wherever they have exhibited themselves, attracting the attention of the curious and enlightened, filling with astonishment and wonder the illiterate, and eliciting the speculations and opinions of the medical and physiological members of the profession, will not, I am sure, bear comparison with this remarkable lusus naturæ.

The writer of this, together with many members of the medical profession who have had the pleasure of visiting and seeing the numerous cases of monstrosities, both in the medical and other museums in Philadelphia, as also of seeing the noted Siamese twins, fully concur in the opinion that this is a far greater curiosity, and greatly surpasses any specimen they have ever seen or read of, in its singular development. Already different views and opinions have been advanced by the medical gentlemen who have seen it, as to its internal structure and physiological relations. It is indeed amusing to observe the countenances, and to hear the singular expressions and opinions of the numerous uninformed persons who have seen it, as to its uterine development and fætal existence, and finally its delivery; and surely this is not at all remarkable, for whether it may be attributed to the influence of the maternal imagination on the fœtus in utero, or to accidental changes experienced by the fœtus at some period of uterine existence, or to a primitive defect in the germ, are questions well calculated to puzzle the most profound physiologist to solve, as well as to open a wide field upon which the imaginary and speculative members of the profession may muse with pleasure The celebrated Siamese twins have already elicited much speculation, and have drawn forth the different views and opinions of most of the distinguished members of the medical profession, both of this country and Europe, in relation to their internal organisation, &c. Whether there exists so great sympathy between their nervous and circulating system, in fact, among all their important organic developments, as to endanger their lives, were the ligamentous membrane that unites them severed, has been a question long mooted by medical men. The writer of this, as before observed, has had the pleasure of seeing this noted curiosity, but, to speak candidly, saw nothing about them calculated to excite very much his curiosity and astonishment, except the fact of their being united by a ligamentous substance, and the remarkable similarity in their countenances and physical conformation, &c. The most singular fact is, their having been delivered

7 *

alive, and survived to manhood in a country where the medical, and especially the obstetrical, art must have been, and still is, from the nature of things, in a very rude and imperfect condition; but dame Nature does, and would in a majority of instances, accomplish what the eager physician, either to afford speedily relief to his suffering patient, or to enhance his own reputation, too frequently takes out of her hands. How much more astonishing and remarkable, then, is this little curiosity, than the noted Siamese twins? How many more views and opinions would have been drawn forth from the medical profession, could this rare case of lusus naturæ have been delivered alive, and grown up to manhood?

I have thus, Mr. Editor, given you, and through your valuable periodical to the world, as correct a description of this curiosity as I am capable of doing, and which I deemed a duty I owed to the medical profession. I have endeavoured to guard against giving it any false colouring, or rendering it more mysterious and wonderful than it really is; as it presents itself to me, thus I give it to you. I have avoided as much as possible running into any theoretical or speculative opinions of my own, as to its internal physiological relations. I leave this to you, and to the other distinguished members of the medical faculty, hoping that you will, should you deem this worthy of insertion in your journal, give us your views at length, and oblige

Your obedient servant and pupil,

WM. L. THRUSTON, M. D.

ART. III.—ON THE ORDER OF SUCCESSION IN WHICH THE VITAL ACTIONS ARE ARRESTED IN ASPHYXIA.

BY JOHN REID, M. D., F. R. C. P. E.

Lecturer on the Institutes of Medicine, President of the Anatomical Society, &c.

A knowledge of the order of succession in which the vital actions of the body are brought to a stand in asphyxia, is not only useful in elucidating the exact nature of the function of respiration, and in pointing out rules for our guidance in the direction of certain remedial agents, but it may also be brought to bear in an important manner upon the investigations into the general laws of physiology. The inquiry is one, however, of unusual difficulty, from the intimate manner in which the respiration is associated in the higher animals with the other vital functions, and the rapidity and energy of the actions and reactions of these upon each other. In conducting such experiments, it is not only necessary to watch closely every phenomenon which presents itself, however fleeting it may be, but all the varied concomitant circumstances must also be carefully analysed, and, if possible, insulated, with the view of ascertaining how far they might affect the results. Our progress in such investigations must, therefore, always necessarily be slow, frequently vacillating and uncertain. These difficulties were found so perplexing, that I had several times nearly given up the present inquiry in despair; and it was not without much labour, and repeated failures, that I arrived at what I considered satisfactory results.

The two points in the physiology of asphyxia which have of late years principally attracted attention are, the nature of the impediment to the circulation of the blood through the lungs; and the cause of the arrestment of the sensorial functions. A correct knowledge of the manner in which the vital actions are arrested in asphyxia, is supposed to be included in the true explanations of these two facts. The first of these, viz. the impediment to

the free passage of the blood through the vessels of the lungs, and its consequent stagnation in the right side of the heart, and the large vessels leading to that organ, have been attributed to three causes—the cessation of the mechanical movements of the chest; the effects of the venous blood upon the contractility of the heart; and the difficulty of transmitting the venous blood through the capillaries of the lungs, when the chemical changes which go on there between the blood and the atmospheric air have ceased. The opinion, that the blood in death from asphyxia chiefly accumulates in the right side of the heart and the large vessels leading to it, in consequence of the stoppage of the mechanical movements of the chest, was advocated by Haller.' He maintained, that when the lungs were distended with air, as in inspiration, that the blood flowed readily and abundantly through the pulmonary vessels; but, on the other hand, when these organs had collapsed, as in expiration, the pulmonary bloodvessels were so compressed, and their angles rendered so acute, that they became in a great measure impermeable to the blood sent from the right side of the heart.2 Goodwyn3 argued, in opposion to the mathematical calculations and reasonings adduced by Haller, that, when the lungs are diminished in their bulk, and the acuteness of the angles of the bloodvessels changed only to the extent which occurs during expiration, the flow of blood through them would not be materially obstructed. He also drew additional arguments in favour of this opinion, from the continuance of the circulation through the lungs, when an amount of fluid was present in the chest sufficient to compress the lung to the extent which occurs in expiration, whether this fluid had been effused in the human species from disease, or induced by artificial means in the lower animals.4 Goodwyn maintained that the cessation of the circulation in asphyxia was chiefly dependent upon the venous blood failing to excite the contractions of the left side of the heart. "When respiration," he says, "is obstructed, the florid colour of the blood is gradually diminished, and the contractions of the left auricle and ventricle soon cease. The cessation of contraction arises from a defect of a stimulating quantity in the blood itself." The views of Goodwyn were attacked a few years after their promulgation by Coleman⁶ and Kite.7 Both these authors adduced the results of various experiments, to prove that the left side of the heart can contract vigorously upon venous blood; and they also both maintained that they had proved experimentally, that, when the lungs are kept mechanically distended during the process of asphyxia, that the quantity of blood found in the right side after death is not found to preponderate much, if at all, over that contained in the left side.9 Bichat also furnished abundant evidence to prove that the left side of the heart can contract vigorously upon venous blood. In numerous experiments, he found that when an animal is asphyxiated, black blood at first traverses the lungs to reach the left side of the heart, and may for a short time be projected from a cut artery, with very considerable force; and he further satisfied himself, that the contractions of the heart could be renewed even after they had become quiescent in different kinds of violent deaths, by injecting venous blood along one of the pulmonary veins towards the left side of the heart.10 Bichat especially dwelt upon the importance of discriminating between the

¹ Elementa Physiologiæ, Tom. iii. Lib. viii. Sect. iv. ² Opus cit. Tome iii. p. 246. 1776. ³ The Connection of Life with Respiration. London, 1788. 4 Opus cit. p. 40-47. ⁵ Opus cit. p. 85.

⁶ A Dissertation on Suspended Respiration, 1791.

⁷ Essays and Observations, &c. on the Submersion of Animals, &c. 1795.

⁸ Coleman, Opus cit. p. 118; and Kite, Opus cit. p. 26, 42, and 44.

⁹ Coleman, p. 107 to 116; Kite, "From these experiments, it is evident that a small quantity of blood can pass through the lungs when they are in a state of perfect expiration."-P. 58.

¹⁰ Sur La Vie et La Mort, article sixième, § ii.

effects of asphyxia upon the functions of animal and those of organic life; of ascertaining the priority of the suspension of those two great sets of functions, and the influence which they exerted upon each other. He maintained that the heart's action does not cease because the dark blood transmitted to the left side of the heart cannot excite it to contract, but because the dark blood, by being circulated through the coronary arteries in the muscular tissue of the heart, arrests its contractility. This effect of the dark blood upon the contractility of the heart was, however, regarded by Bichat as only an isolated phenomenon in asphyxia; for he believed that the vitality of all the tissues of the body was equally affected by the circulation of this dark blood, and that the functions of the brain, or the animal functions, were always arrested before those of organic life. He maintained that the accumulation of the blood in the right side of the heart did not depend upon any mechanical obstruction in the bloodvessels of the lungs, but from various other causes, among which he enumerates the obstacles opposed to the force of the already enfeebled right side of the heart, by the effects of the circulation of dark blood in the bronchial arteries, and the cessation of the excitation of the lungs by the atmospheric air,2 aided by the circumstance that the systemic ventricle can more easily overcome the resistance presented by the capillaries of the body generally, than the veins and pulmonic ventricle can overcome that arising from the capillaries of the lungs. Bichat appears to have entertained doubts whether the circulation of the venous blood through the capillaries of the systemic circulation arrested the vitality of the tissues simply by default of excitation, or by exerting some deleterious influence upon it; for, while discussing its effects upon the brain, he thus expresses himself-"Je ne puis dire si c'est negativement ou positivement que s'exerce son influence: tout ce que je sais, c'est que les fonctions du cerveau sont suspendues par elle." Although Bichat failed in giving the correct explanation of the manner in which the vital actions are arrested in asphyxia, yet there can be no doubt that to him we are indebted for having pointed out the true path by which this knowledge was to be attained. Another important advance was made in the elucidation of asphyxia by the experiments of Dr. David Williams, of Liverpool, and Dr. J. P. Kay. Dr. Williams,3 in experimenting on this subject, found "that when the chest is laid open immediately after the trachea has been tied during the acme of inspiration, the pulmonary veins soon become empty, while the pulmonary artery continues full." From these experiments, he inferred that, in asphyxia, the blood is obstructed in its passage through the lungs, while its circulation through the other tissues of the body continues; and that the obstruction in the lungs "arises from a deprivation of pure atmospheric air." Dr. Kay, from his numerous experiments,4 has also arrived at the conclusion, that "the circulation is arrested after respiration ceases; because, from the exclusion of oxygen, and the consequent non-arterialisation of the blood, the minute pulmonary vessels, which usually convey arterial blood, are then incapable of conveying venous blood, which therefore stagnates in the lungs."5 Dr. Kay believes that this stagnation of blood in the right side of the heart and pulmonary artery, occurs in consequence of venous blood being incapable of exciting the arterial capillary bloodvessels of the lungs. The experiments of Dr. W. F. Edwards upon frogs, and those of Dr. Kay

¹ Car, d'après ce que nous dirons, l'affaiblissement qu' éprouve alors le cœur n'est qu'un symptôme particulier de cette maladie dans laquelle tous les autres organes sont le siége d'une semblable débilité.

^{2 &}quot;Le défaut de son excitation par l'air vital."

³ On the Cause and the Effects of an Obstruction of the Blood in the Lungs. Edinburgh Medical and Surgical Journal, Vol. xix. p. 524.

⁴ The Physiology, Pathology, and Treatment of Asphyxia, 1834.

⁵ Opus cit. p. 181.

⁶ De L'Influence des Agens Physiques sur la Vie, p. 9, 1824.

upon warm-blooded animals, have very distinctly proved that the circulation of venous blood in the muscular tissue not only does not exert any deleterious influence upon its contractility, but that this property continues to manifest itself considerably longer when venous blood is allowed to circulate through the vessels of that tissue, than when the circulation of the blood has been

entirely arrested.

Though the experiments of Dr. Williams and Kay have demonstrated that in asphyxia the circulation is first brought to a stand by some impediment to its free passage through the lungs, yet we believe that few will feel satisfied, after a careful analysis of them, that they enable us to determine whether this impediment results from the cessation of the respiratory movements of the chest, or from the arrestment of the usual chemical changes between the blood and the atmospheric air—a question of considerable importance in general physiology. When we remember the great influence exerted by the respiratory muscular movements upon the force with which the blood is transmitted along its vessels,—a fact first well illustrated by Hales,¹ afterwards by Bichat.² and latterly in a more definite manner by Magendie³ and by Poiseuille,4—a degree of uncertainty must always exist in interpreting phenomena observed in experiments upon asphyxia, in which means have not been taken to obtain the extent and value of this influence.

Such a precaution is the more necessary, since it has been ascertained that dark blood passes at first in the usual quantity through the lungs, and is sent with great force and in a full stream from a cut artery; that it is not until the respiratory movements have been considerably impaired that it begins to stagnate in the lungs; and that after death, considerable quantities of dark blood are frequently obtained from the left side of the heart. Coleman found that the relative quantity of blood in the two sides of the heart, after drowning, varied considerably; "sometimes being as 7 to 4, at other times as 5 to 2, or as 12 to 7. So that, as a medium, the proportions of the right one to the left are about $3\frac{1}{4}$ to $1\frac{3}{4}$. After hanging, the medium was

found to be as $2\frac{7}{8}$ to $1\frac{1}{2}$.

Professor Alison, with the view of supplying this defect in the theory of asphyxia, performed several times the following experiments.6 A rabbit was confined in nitrogen gas until its respiratory movements had become laboured, and insensibility was approaching. The animal was then withdrawn as rapidly as possible from the glass jar in which it had been confined, and the brain was suddenly crushed by a blow with a hammer, and the chest was immediately laid open. The quantity of blood found in the right side of the heart preponderated considerably over that in the left, and, as the respiratory movements had not been interrupted until the animal had been deprived of life, and the circulation in a great measure suspended, these experiments are obviously greatly in favour of the opinion, that the accumulation of the blood in and around the right side of the heart is dependent upon the cessation of the chemical changes between the blood and atmospheric air in the lungs, and not upon the arrestment of the mechanical movements of the chest.

It appeared to me that very conclusive evidence might be obtained on this question by a series of experiments performed in the following manner. A tube with a stop-cock was fixed into an opening in the trachea, and one of Poiseuille's hemadynamometers was introduced into the femoral artery, for the purpose of obtaining definite information upon the force with which the blood was transmitted along the arterial system. The stop-cock of the tube

¹ Statical Essays, Vol. ii, p. 1 to 33, 1740.

² Sur la Vie et la Mort, article huitième, § ii.

³ Journal de Physiologie, Tom. i. Leçons sur les Phénomènes Physiques de la Vie. ⁴ Journal de Physiologie, Tom. viii. p. 272.

⁵ Opus cit. p. 18.

⁶ Edinburgh Medical and Surgical Journal, Vol. xlv, p. 103.

in the trachea was then shut, and when the respiratory process had been suspended sufficiently long to cause a decided fall in the column of mercury supported by the blood sent along the femoral artery, a large bladder, full of pure nitrogen with a brass nozzle provided with a stop-cock, was fixed in the tube in the trachea, which it fitted accurately, and both stop-cocks opened. After the effects of the respiration of the nitrogen gas had been ascertained, a bladder of the same size as the other, similarly provided with a nozzle, and full of atmospheric air, was then substituted for the bladder containing the nitrogen, and the results compared. The difference between the effects of the respiration of the nitrogen gas and the atmospheric air was most marked, and of such a nature as could not be mistaken; for while the mercury continued to fall in the instrument during the respiration of the nitrogen gas, it rose very rapidly immediately after the atmospheric air had entered the lungs, and acted upon the blood. In this experiment, the same mechanical movements of the chest which failed to renew the free circulation of the blood through the lungs when nitrogen gas was inspired, rapidly effected that object when atmospheric air was permitted to enter the lungs, even when tried on the same animal, and subsequent to the failure of the nitrogen, and, consequently, at a more advanced stage of the process of asphyxia. This experiment was repeated several times, and when the requisite care was taken to procure and employ pute nitrogen, invariably with the same results.1

Before directing the attention of the reader to a table containing the results of one these experiments, it will be necessary to take notice of a very unexpected phenomenon which presented itself, and for a considerable time completely embarrassed and perplexed me. Before commencing these experiments, I conceived from à priori reasoning, that when the blood had become dark in the arteries, and the animal functions had been suspended, that the mercury would begin to fall gradually and steadily in the hemadynamometer, and that there would in a short time be a marked depression in the level of The mercury, however, actually stood higher in the instrument, and the large arteries became more distended and tense for about two minutes after the animal had become insensible, when the blood in an exposed and unobstructed artery was equally dark as that in the accompanying vein, and when the attempts at respiration were few and imperfect, than before the stop-cock in the trachea was shut, and when the animal was breathing atmospheric air freely. This was so unlooked for, at first sight was so inexplicable, and so much at variance with my preconceived notions on the subject, that I was strongly inclined to believe that there must be some source of fallacy; but after repeating the experiment more than twenty times, and invariably with the same results, I was at last compelled to admit its accuracy. I then began to surmise that this arose from an impediment to the passage of the venous blood through the capillaries of the systemic circulation, similar to that pointed out in the capillaries of the pulmonic circulation, by which the force of the left ventricle was principally concentrated in the arterial system, and on placing a hemadynamometer in the vein of the opposite limb, and comparing its indications with the instrument fixed in the artery, this supposition, as may be seen from the annexed tabular view of the results of one of these experiments, appeared to be verified. This fact may explain how a quantity of blood is retained in the left side of the heart in asphyxia. It was also ascertained, that though the fall of the mercury in the instrument after the animal was nearly asphyxiated took place very gradually at first, it at last fell very rapidly. Suppose, for example, that the mercury in the tube ranged between 4½ and 5 inches in height before the entrance of fresh air into the lungs was prevented, it rose

¹ In the experiments first performed, the mercury rose in the instrument, but the nitrogen was mixed with a quantity of atmospheric air, as was proved by the blood becoming partially arterialised in an exposed artery.

above this when the animal had ceased to struggle; it afterwards fell very gradually to between 3 and 4 inches; and when it had fallen to between 2 and 3 inches, it frequently sunk very rapidly to the original level. When atmospheric air was allowed to enter the lungs after the mercury had sunk low in the instrument, no sooner had the air acted upon the blood in the lungs, than the mercury instantly sprung up several inches, and when the blood had become more perfectly arterialised, it again stood lower, and the range was more limited. The respirations were necessarily much diminished in frequency, also slow and heaving after the stop-cock was opened in an advanced period of the process of asphyxia, and it was remarked, that during each respiratory movement the contractions of the heart were not only performed with increased strength, but likewise with greatly increased frequency. When the animal was breathing freely through the tube in the trachea, was quiescent, and when the blood was fully arterialised, the range of level of the mercury in the tube seldom exceeded half an inch, sometimes not so much. When the stop-cock was shut, no change took place in the range of the mercury during the first half minute: generally before the end of the first minute the animal had begun to struggle, and then the range greatly increased,—rising during each attempt at expiration, and during the struggling of the animal, falling during each attempt at expiration and during quiescence. In some of the experiments, the range of the mercury during these different conditions amounted to about nine inches, and in one experiment to ten inches, - making a most material disproportion in the extent of the pressure upon the inner surface of the arterial system of vessels.

TABLE I.—Showing the changes in inches of the height and range of the mercurial column in the vertical limb of the hemadynamometer in one of the first class of experiments, when the instrument was fixed in the artery only; the intervals of time at which each change occurred, reckoning in half minutes from the commencement of the operation; with remarks on the state of the animal at these respective changes. The depth and height of the mercury marked at the end of each half minute indicated, as near as possible, the extent of the range in the level of the column during that interval of time.

| | Height of Mercury |
|--------------|----------------------|
| Intervals of | in the tube attached |
| Time. | to the Artery. |

Remarks on the state of the Animal.

| Minutes. | Depth. | Height. | 3771 |
|------------------------|--------|---------|---|
| | | 1.0 | When the hemadynamometer was adjusted to artery, the mercury stood at this height in the vertical tube of the instrument. |
| | | 5.5 | At the instant the stop-cock was turned, it was 5.5. |
| $\frac{1}{2}$ | 4.0 | 4.5 | Stop-cock on trachea shut. Dog quiet. |
| 1 | 3.0 | 7.0 | Do. The artery becoming a little dark. |
| $\frac{1}{2}$ | 3.0 | 9.0 | Do. The artery black. Animal struggling. |
| $\tilde{2}^{z}$ | 2.0 | 12.0 | Do. do. Animal struggling violently. |
| $\tilde{2}\frac{1}{2}$ | 4.0 | 9.0 | Do. do. Animal quiet. |
| $4\frac{1}{2}$ | 4.0 | 8.0 | Do. do. do. |
| 5 | 4.0 | 8.0 | Stop-cock on trachea opened, and a bladder filled with nitrogen gas applied. |
| 6 | 3.0 | 6.0 | Do. do. |
| | | 11 | § Bladder of nitrogen removed, and one filled with atmospheric air applied. |
| 71/2 | 5.0 | 11.0 | Bladder removed. Natural respiration al- |
| | F 0 | | lowed. |
| 81/2 | 5.0 | 6 | Bladder removed. Animal quiet. |
| | | | |

TABLE II.—Showing the same conditions in regard to the second class of experiments, in which hemadynamometers were applied to both the artery and vein at the same time.

| Intervals of Time. | Height of Mercury in the tube attached To the Artery. To the Vein. | | | ed Remarks on the state of the Animal. | |
|--------------------|--|---------|--------|--|--|
| Minutes. | Depth. | Height. | Depth. | Height. | When the hemadynamo- meters were adjusted to the |
| | | 0.5 | | 0.0 | vessels, the mercury stood at these heights in the two instruments respectively. |
| | | 6.0 | 5.0 | 6.0 | |
| $\frac{1}{2}$ | 4.0 | 5.0 | | 4.0 | Respiration natural. Dog quiet. |
| $2\frac{1}{2}$ | 3.5 | 5.0 | | 4.0 | Stop-cock on trachea shut. |
| $3\frac{1}{2}$ | 3.0 | 6.0 | | 3.5 | Do. |
| 4 | 2.0 | 11.0 | | 12. | The mercury thrown over the top of venous tube, which was 12 inches high. |
| $4\frac{1}{2}$ | 5.5 | 10.0 | | 12. | Mercury stood at top of venous tube. |
| $5\frac{1}{2}$ | 5.5 | 9.0 | | 8.0 | Do. |
| $6\frac{1}{2}$ | 5.0 | 11.0 | | 3.5 | Do. |
| $7\frac{1}{2}$ | 5.0 | 8. | | 2.5 | Do. |
| $8\frac{1}{2}$ | 2.5 | | | 2.1 | Do. |

In some of the other experiments, the difference between the height of mercury in the two instruments, when the blood became venous, was not so marked as in this.

In performing these experiments, I derived much valuable assistance from several gentlemen, but more especially from Mr. James Spence and Mr. K.

T. Kemp.

We now proceed to examine the explanations which have been given by physiologists of the cause of the arrestment of the sensorial functions in asphyxia. We have already stated that Bichat maintained that the suspension of the sensorial functions was caused by the circulation of venous blood in the arteries of the brain; while Dr. Kay believes that he has proved that it is principally dependent upon a diminished supply of that fluid being sent along the systemic arteries, in consequence of the impediment to the circulation through the lungs, and not because the blood sent to the brain is venous—an opinion somewhat similar to that maintained by John Hunter.¹ The experiments of Dr. Kay, in which he injected, "gradually and gently,"² four drams of venous blood into one of the four arteries conveying arterial blood to the brain, through a very small syringe, "having a beak with a capillary bore," though undoubtedly sufficient to prove the highly unsatisfactory nature of the evidence adduced by Bichat in support of his position, that the sensorial functions are arrested by the circulation of venous blood in the arteries of the brain, cannot, however, be adduced as satisfactory evidence against the doctrine itself. Such an experiment may prove that the transmission of a certain quantity of venous blood along one carotid artery is not sufficient to produce cerebral derangement; but it cannot enable us to determine what would be the effect of the passage of venous blood along all the four arteries of the brain. We have very frequently watched an exposed

² Opus cit. p. 194.

¹ Hunter's Works by Palmer, Vol. iv, p. 168-170.

carotid artery in an animal during the process of asphyxia, and have observed that the blood flowing along it gradually becomes darker and darker; and we were satisfied that considerably more venous blood than in the experiments now referred to, is circulated through the brain for a short time before the animal is seized with convulsions and insensibility. It is evident, then, that, if the suspension of the sensorial functions is caused by the presence of dark blood in the arteries of the brain, it must be circulated in greater quantities, and for a longer time than occurred in these experiments of Bichat and Dr. Kay. Before we can proceed further in this inquiry, it will be necessary that we examine the variations in the quantity and force with which the blood is sent along the arteries, and returned by the veins during the process of asphyxia. We have already stated that the arterial pressure, as ascertained by the hemadynamometer, is very little altered during the first half minute after the entrance of fresh air into the lungs has been suspended; that about the end of the first, or the beginning of the second minute, when the animal commences to struggle, the pressure is greatly increased; and that, generally, for about two minutes after the animal had become insensible, and had consequently ceased to struggle, the pressure was even greater than before the commencement of the operation. It was also repeatedly ascertained, that the venous pressure, as indicated by the hemadynamometer introduced into the jugular and femoral veins, was equally great for a short time after the animal had become insensible, as before the respiration had been suspended. When an artery is cut across, immediately after insensibility has supervened, the blood springs from it in a full stream, and with a force equal to what would occur if atterial blood was circulating in the vessels. The insensibility in asphyxia cannot, therefore, depend upon any diminution in the force with which the blood is sent along the arteries of the brain, nor upon any diminution in the vascular pressure upon that organ. As, however, the frequency of the pulsations in the arteries becomes remarkably diminished before the circulation has been fairly suspended, we are naturally led to inquire if any change in the quantity of blood sent along the arteries of the brain could account for the suspension of its functions. With this view, we performed several experiments upon dogs. A tube, furnished with a stop-cock, was introduced into the trachea, and firmly secured there; the femoral artery was then laid bare, that the changes in the blood might be observed, and the number of pulsations more carefully reckoned. We shall give the details of four of these experiments. After the femoral artery had been laid bare, the pulse ranged from 105 to 120 in a minute. and the respirations were very short and rapid. At the end of the first half minute after the stop-cock was turned, the pulse was 92. At one minute and a half, the pulse was about 120, the animal had begun to struggle, and the blood in the artery was decidedly dark. At the second minute, the blood in the artery was nearly as dark as in the accompanying vein, but, from the struggles of the animal, it was impossible to reckon the pulse. At the end of two minutes and a half, the animal had ceased to struggle, was evidently insensible, and the pulse was 42. At the beginning of the fourth minute, the pulse was still 42. The stop-cock was now opened, and the animal allowed to breathe. When the blood was becoming red in the artery, the pulse was 78. A short time after this, when the animal was rapidly recovering its consciousness, the pulse was 60, and the respirations about 132. In another experiment, the pulse was 80 at the time when the stop-cock was closed. At the end of the first minute, the pulse was 114, and the blood was decidedly darker, and the animal was struggling. At the end of one minute and a half, the animal was struggling, and the blood was nearly as black as in the accompanying vein. At the end of two minutes and a half, the pulse was 60, irregular in frequency-two beats following each other rapidly; the animal had ceased to struggle, and the blood was as dark as in the vein. At the end of the third minute, the pulse was still 60, and irregular. In a third experiment, the pulse was 100 before the stop-cock

was turned. At the end of one minute, the blood was getting dark, the animal had begun to struggle, and the pulse was 120. During the course of the second minute, it struggled violently, and the pulse could not be reckoned. At the end of two minutes and a half, the animal had ceased to struggle, the respirations were few and heaving, and the pulse was 78. At the end of the third minute, the pulse was 60. In a fourth experiment, the pulse ranged from 88 to 96 before the stop-cock was turned. Aiter half a minute, the pulse was 71, and the blood was somewhat darker. After two minutes and a half, the animal had ceased to struggle, the blood was as dark in the artery as in the vein, and the pulse was 70. At the end of the third minute, the efforts at breathing had nearly ceased, and the pulse was 66. In such experiments as these, it is impossible to ascertain the exact frequency of the pulse at the precise moment when the sensorial functions are suspended, in consequence of the struggles and convulsive movements with which this is preceded. Taking, however, all the circumstances of the experiments into account, and combining with them the facts ascertained in those previously detailed, to prove that the arterial and venous pressure is not diminished at the time that the animal has become insensible, we have little difficulty in arriving at the conclusion, that, though the pulse has become less frequent about the time that the insensibility has supervened, yet that this has not taken place to such an extent as to justify the opinion that the arrestment of the sensorial functions depends upon any diminished transmission of blood through the vessels of the brain. If a diminution in the frequency of the pulse, to the extent we have indicated, could produce insensibility, this would frequently present itself during the course of disease, and under other circumstances where nothing approaching to it is observed. It must also be remembered that the pulse, as ascertained before the experiment has been commenced, must have been more frequent than usual, from the terror of the animal. In these experiments, I regarded the animal as in a state of insensibility when the struggles and convulsive movements had ceased. The function of respiration continued for a short time after the suspension of the sensorial functions, but rapidly became enfeebled. The circulation of the dark blood in the vessels of the encephalon, therefore, arrests the functions of the cerebral hemispheres before those of the medulla oblongata.

Dr. Kay has performed several experiments, from which he has drawn conclusions very different from those which we have just stated. He found, that when the abdominal aorta was cut across in a rabbit of the ordinary size, "nearly seven drains and three quarters of blood would escape from the divided aorta when respiration was unobstructed." He then proceeded to cut this vessel across at different periods after the admission of fresh air into the lungs was precluded, and found that, when cut across half a minute after this, the blood collected almost equaled what would have escaped, if the free access of air into the lungs had been permitted. In another animal it was cut across after a minute and a half, and five drams of blood escaped; when postponed to two minutes and a half, four drams were collected; and when delayed to the termination of the third minute, only two drams were collected. In judging of the value to be attached to these experiments of Dr. Kay, two circumstances are to be taken into account—the time an animal requires to bleed to death; and the precise time at which the sensorial functions are arrested. As there can be no doubt that an impediment to the circulation through the lungs does not occur in the course of the process of asphyxia, it is, therefore, a matter of considerable importance to ascertain not only the precise time at which the sensorial functions are arrested, but also the average period of time which the blood would continue to flow from a cut artery when the respiration is unobstructed, before we can venture to determine whether there is any relation between the suspension of the sen-

sorial functions and the arrested circulation in the lungs. With the view of satisfying myself on these points, the abdominal aorta in a rabbit, breathing naturally, was cut across a little above its bifurcation. The blood continued to flow freely for about one minute; it flowed feebly for another minute; and very feebly for about forty seconds more. In this experiment, two minutes and forty seconds elapsed before the bleeding from the artery Though in some subsequent experiments the hemorrhage had ceased in a somewhat shorter time, yet we believe that in the rabbit it seldom stops before two minutes have elapsed. With regard to the other point we have mentioned, viz. the exact period at which the sensorial functions are arrested, this has been most unaccountably overlooked by Dr. Kay. He seems not to have been aware that a dog generally becomes insensible in from two to two minutes and a half, and a rabbit in one minute and a half, after the complete occlusion of air from the lungs, so that experiments such as those he has related, made to ascertain the quantity of blood which flows from a cut artery at periods posterior to the occurrence of the suspension of the sensorial functions, cannot be adduced in explanation of effects which have previously happened. In performing the experiments as I have already mentioned, I took the cessation of the struggles and the convulsive movements of the animal as a test of insensibility. When a ligature is tied tightly around the trachea of a rabbit, the animal moves about nimbly at first, but before one minute and a half have elapsed, it has fallen down in a state of insensibility, and the attempts at respiration are few and heaving. As the manifestation of the functions of the medulla oblongata, upon which respiration depends, are not necessarily linked with that of the functions of the cerebral hemispheres or the sensorial functions, it must be evident that, in attempting to discover the cause of the cessation of the mechanical movements of the chest, the frequency of the respirations ought to be attended to, and not the suspension of the sensorial functions. This circumstance has not been overlooked by us in performing these experiments; and we are satisfied that the function of respiration is much enfeebled at a period of the process of asphyxia, when this cannot be explained by any diminution in the quantity of blood sent to the medulla oblongata. No doubt, respiratory movements may be observed after the pulsations have been very considerably diminished in frequency, but these have become few in number, and performed at long intervals before this condition of the circulation has been induced; but it is quite possible that the ultimate cessation of the functions of the medulla oblongata may be hastened by the diminished quantity of blood sent along the arteries supplying it. If we proceed, therefore, to analyse the experiments of Dr. Kay, bearing in mind the length of time the blood continues to flow from the divided abdominal aorta of a rabbit, and the precise time at which the sensorial functions are arrested in the process of asphyxia, we must arrive at very different conclusions from those which he has deduced from them.

In further confirmation of the views we are advocating, we may appeal to the experience of every practical physician; for he cannot have failed to observe the gradual torpor that frequently creeps over the sensorial functions in severe cases of bronchitis, when an ill-arterialised blood is circulating in the vessels of the brain, and the pulse is still pretty strong at the wrist.

We feel very strongly convinced that Dr. Kay has fallen into another error in stating, that, three minutes after the entrance of air into the lungs had been prevented, the blood in the arteries had assumed the venous hue "still imperfectly;" for, in numerous experiments, various gentlemen who were present all agreed that the colour of the blood in the arteries was as dark as that contained in the accompanying veins at a period anterior to this. The statement of Bichat, that the blood in the arteries exactly resembles venous blood in a minute and a half or two minutes, is, I am satisfied, much nearer the truth.

From the various facts we have mentioned, we have arrived at the con-

clusion, that the suspension of the functions of the encephalon are chiefly, if not entirely, dependent upon the circulation of venous blood in the arteries. We do not, however, maintain that venous blood exerts any noxious influence upon the functions of the nervous texture; but believe that the effects are solely to be attributed to the want of the proper excitation of the organ; for, when the circulation of arterial blood is renewed, its functions rapidly remanifest themselves, provided that this be done within a given time.

We believe, then, that, in asphyxia, the order of succession in which the vital processes are arrested, is as follows:-The venous blood is at first transmitted freely through the lungs, and reaches the left side of the heart, by which it is driven through all the textures of the body. As the blood becomes more venous, its circulation through the vessels of the brain deranges the sensorial functions, and rapidly suspends them, so that the individual becomes unconscious of all external impressions. The functions of the medulla oblong ata are enfeebled about the same period that the sensorial functions are arrested, but are not fairly suspended for some time longer. Immediately after the sensorial functions are suspended, and the blood has become still more venous, it is transmitted with difficulty through the capillaries of the lungs, and consequently begins to collect in the right side of the heart. A smaller quantity of blood must now necessarily reach the left side of the heart; and this diminution of the quantity of blood sent along the arteries, conjoined with its venous character, and the ultimate arrestment of the circulation, being circumstances incompatible with the manifestation of vitality in the other tissues of the body, general death is sooner or later induced.

The persistence of the muscular contractility after the arrestment of the circulation varies, as we have had frequent opportunities of witnessing, according to the age and strength of the individual, and also in a very marked manner from constitutional causes, which are unknown; and in this way we are able to explain how the heart's action may be renewed a considerable time in some cases after apparent death, while in others all the attempts to restore animation, though commenced shortly after the suspension of the sensorial functions, have failed. It must be obvious, that the first and principal object in the treatment of asphyxia is to restore the circulation through the lungs. If once we succeed in this, and thus renew the heart's action, the arterial blood is again transmitted to the encephalon and the other tissues of the body; the functions of the medulla oblongata remanifest themselves; the sensorial functions are gradually restored; and the animal heat return. The derangement of the functions of the medulla oblong at a and the sensorial functions are not necessarily coequal in extent, and never in importance, in asphyxia, and this is well observed in some of those cases of death from disease or narcotic poisons, where the process of asphyxia occurs more slowly and gradually. In these it is not unusual to find the sensorial functions nearly or entirely suspended, at a time when the respiration is pretty effectively carried on; and it is evident, from various facts, that the arrestment of the muscular respiratory movements is not dependent upon the suspension of the sensorial functions, but upon those of the $m_{\ell}dulla$ oblongata.

We shall now proceed to make some remarks upon the increased force with which the blood is sent along the arteries during muscular contraction. It has been proved, as we have already mentioned, that the blood is sent with greater velocity and increased force along the arteries during the contraction of the muscles of the limbs and trunk, as in exercise, and this takes place in a more marked manner during violent attempts at expiration. On the other hand, during violent attempts at inspiration, the pulse becomes less frequent, feeble, and soft. In some of the experiments we performed, as we have already mentioned, the mercury rose as high as the eleventh, and in one to the twelfth inch of the scale attached to the tube, during violent attempts at expiration, and the struggles of the animal; while it fell as low as the second inch, during violent attempts at inspiration. During these

different conditions, the pressure upon the external surface of the heart, and its position in the chest, must be somewhat altered, a certain amount of pressure being applied to its outer surface during expiration, and removed during inspiration; and it recedes deeper into the chest during inspiration, and again comes forward during expiration; but we may safely set those aside as exerting any appreciable influence in the production of the pheno-Müller believes that the increased contractions of the mena in question. heart, accompanying muscular movements of the trunk and limbs, may be caused by a sympathetic or reflex action—an excitant effect being produced in the filaments of the nerves distributed in the contracting muscles, which, being conveyed inwards to the spinal cord, is reflected upon the heart. however, he adduces no direct evidence in favour of this opinion, we do not feel inclined to abandon the old explanation, that this is merely dependent upon the mechanical acceleration of the blood, by the pressure exerted upon the bloodvessels by the surrounding muscles during their contraction, and the more especially as we have witnessed several facts which at least prove that a great part of the phenomena in question may arise from this cause. We have frequently remarked, that when an animal was breathing very rapidly, even above 100 in a minute, through a tube in the trachea, that the mercury did not rise higher in the instrument than before, and that the range was limited, provided the expirations were always short, and, consequently, not attended with much compression of the bloodvessels in the thorax and abdomen. On the other hand, a marked rise of the mercury took place whenever a forced expiration was made, however slowly this was performed. It was also repeatedly observed, that when one instrument was fixed in the femoral artery, and another in the femoral vein of the opposite limb, the mercury stood considerably higher in the instrument fixed in the vein than in that fixed in the artery, when the animal began to struggle violently. In few of the experiments did the mercury rice much above eleven inches in the instrument in the artery, while it frequently ran over the top of a tube twelve inches high, with considerable force, in the instrument fixed in the vein—showing us in some of these experiments a prodigious increase in the pressure upon the inner surface of the venous system, equal to between three and four pounds on every square inch of surface. This greater elevation of the mercury in the instrument fixed in the vein, can only be explained by the effects of the mechanical pressure of the surrounding muscles becoming increased, as the extent of the vascular tubes over which it is exerted becomes elongated, and may afford some indications of the greatly increased impulse communicated to the blood by the powerful pressure exerted by the contraction of the muscles of the chest and abdomen upon their contained bloodvessels, when aided by the contractions of the muscles of the limbs, and favoured by the presence and particular disposition of the valves of those bloodvessels. It is difficult to determine, then, how much this increased flow of blood along the vessels during violent expirations, and during the contraction of the muscles of the limbs, depends upon more forcible contractions of the heart, or upon the mechanical effects of temporary pressure upon the bloodvessels. The increased rapidity and strength of the contractions of the heart during violent expirations, must be partly attributed to the compression of the bloodvessels of the lungs, and the transmission of an increased quantity of blood to the left side of the heart, while the diminution in the strength and frequency of the pulse during inspiration must, in a great measure at least, depend upon the sudden removal of that pressure, so that a great part of the blood propelled during a few of the contractions of the right side of the heart, which immediately succeed the sudden dilatation of the thorax, goes to fill up the bloodvessels of the lungs to that state of

¹ In mentioning this fact in the article Heart, in the Cyclopedia of Anatomy and Physiology, the word inspiration has been inadvertently printed for expiration, and vice versa.

plenitude in which they were before the preceding expiration, and a small

quantity only reaches the left side of the heart.

We do not think it necessary to make any remarks upon the question, whether or not the blood stagnates in the lungs, in consequence of the cessation of the chemical changes between the blood and the atmospheric air, or upon any supposed effect which the venous blood may have upon the contractility of the capillary vessels of the lungs, as this has already been most ably and most satisfactorily done by Dr. Alison. He has shown that this phenomenon is to be referred to an interesting general law in physiology, which has hitherto not received the attention which its importance demands, by which the movements of nutritious juices is influenced by the chemical changes, or, as he terms them, the vital attractions connected with the chemical changes, which are constantly going on in the capillary vessels between those juices and the surrounding tissues, by which nutrition and secretion are effected. That such a moving power exists, regulating the quantity of blood which flows through each individual organ, independent of any impulse from the living solids, cannot be doubted. Before arterial blood can be transmitted freely through any tissue or organ, it is not only necessary that the contractions of the heart be performed with a certain amount of force, but that the actions of nutrition and secretion be also in operation; so in the same manner, before the blood can be transmitted through the lungs, it is not only necessary that the right side of the heart retains its contractility, but that the chemical changes between the blood and the atmospheric air should proceed. This doctrine is still further illustrated by the fact which we have ascertained, that, when the blood in the systemic circulation becomes decidedly venous, and unfit for carrying on the process of nutrition, it passes less freely through the capillary arteries into the veins.

BIBLIOGRAPHICAL NOTICES.

Robertson on the Teeth.2

We have had, in recent times, several excellent treatises on the teeth, but they have been directed rather to the anatomy and physiology of those organs

than to their pathological and therapeutical relations.

The author is of opinion that the destruction of the teeth is effected by the corrosive or chemical action of the solid particles of the food, which have been retained, and undergone a process of putrefaction or fermentation, in the several parts of the teeth best adapted for their reception. This we think very questionable. The process of decay certainly commences, in general, in the interior of the tooth, whence it proceeds towards the circumference; and we think there is great reason for the belief, that the decay is rather dependent upon intrinsic than extrinsic causes. The work, however, contains many valuable practical observations, and is adapted both for the professional and the lay reader.

Vide Outlines of Physiology, 3d edition, p. 22-25, 61-64, and 224.

² A Practical Treatise on the Human Teeth; showing the Causes of their Destruction, and the Means of their Preservation. By William Robertson. With plates. First American from the second London edition. 8vo. pp. 229. Philadelphia, 1841.

Traill's Medical Jurisprudence.

The valuable work of our friend, Professor Beck, has been so long before the profession, that it is not necessary for us to speak of its sterling merits. Still there has been room for a smaller treatise, that may give the "outlines" of the science, leaving it for those who may wish to study the subject profoundly to consult the larger. Dr. Traill has supplied such a desideratum, and has given, in epitome, the leading general principles of medical jurisprudence, and of medical police.

The American editor "has restricted himself to the correction of errors, and to the adding of such notes as appeared to him to throw additional light on the topics discussed in the text."

Sir James Clark on Climate.2

The reception which this work has experienced from the profession—as indicated by its being in its third edition—is a sufficient evidence of its worth. The distinguished author has had ample opportunities for testing the sanative agency of different climates, and is possessed of excellent powers for improving those opportunities. Since the work was given into the hands of the compositor, we have seen it advertised for republication in New York, so that it will be placed fairly before the profession of this country. Sir James has had no experience of the climates on this side of the Atlantic, but he indulges in philosophical reflections which may be applied to all.

Tweedie's Library of Medicine.3

This volume concludes the Library of Practical Medicine proper, and is equal to any of its predecessors. The encomiums which we have passed upon them, may with much propriety be transferred to this. It contains, also, a general index to the series.

The enterprising publishers have in press a System of Midwifery, from the able pen of Dr. Rigby, and they propose to publish a forthcoming surgical work, as soon as it appears in London, with notes by an American

The whole series will be well worthy of a place in the library of the practitioner.

Outlines of a Course of Lectures on Medical Jurisprudence. By Thomas Stewart Traill, M. D., F. R. S. E., &c. &c., Regius Professor of Medical Jurisprudence and Medical Police in the University of Edinburgh. First American from the second Edinburgh edition. Revised, with numerous notes. 8vo. pp. 234. Philad. 1841.

On the Sanative Influence of Climate. By Sir James Clark, Bart., F. R. S.; Phy. sician in Ordinary to her Majesty and to Prince Albert, &c. &c. Third edition. 12mo.

pp. 331. Lond. 1841.

3 Dissertations on Hemorrhages, Dropsy, Rheumatism, Gout, Scrofula, &c. &c., with a Formulary and General Index. By Geo. Burrows, M. D., &c. &c.; Geo. Budd, M. D., &c. &c.; Thomas Watson, M. D., &c. &c.; Thomas Shapter, M. D., &c. &c.; Richard Rowland, M. D., &c. &c.; William Budd, M. D.; Arthur Farre, M. D., &c. &c.; and W. Bruce Joy, M. D., &c. &c. Edited by Alex. Tweedie, M. D., F. R. S., &c. &c. with Notes by W. W. Gerhard, M. D., &c. &c. 8vo. pp. 514. Philad. 1841.

Rauch's Psychology.'

To the first edition of this work, we drew the attention of our readers in the last volume of the Intelligencer. The call for a second edition so soon, sufficiently indicates the value that is placed upon it. Since the appearance of the first edition, the talented author has died, leaving a void not easily filled in the respectable college over which he so ably presided.

New York Medical Gazette.

We have received the first number of a new weekly under this title, edited by Dr. William C. Roberts, of New York; and we hail its appearance with pleasure—coming, as it does, so immediately after the decease of the New York Quarterly. The superior advantages of New York for medical instruction have been pointed out most elaborately of late, and we see no reason why she should not possess them; but if such be the fact, there certainly must be lukewarmth in the cause of medical science, when we see the difficulty in establishing a successful medical journal in that city.

The present undertaking, we trust, will succeed better than its predecessors. The number before us contains contributions from Prof. J. B. Beck, of the College of Physicians and Surgeons, and from Dr. J. Kearny Rogers, surgeon to the New York Hospital.

MISCELLANEOUS NOTICES.

Dr. Paine and Dr. Bowditch.—The controversy between these gentlemen, growing out of the work of the former, has closed, and we trust amicably, notwithstanding the war of words that has existed for some time between them. As in every controversy of the kind, the parties have disturbed their own equanimity without making much impression upon those whom they are desirous of convincing; for it rarely happens that the contending parties produce any change upon each other's opinions; and the public generally interest themselves but little in the merits of the question, whilst they are always ready to censure both parties. So satisfied are we that this is the general feeling, that it would be difficult to induce us to engage in literary warfare. Notoriety is sometimes acquired by such displays, but it is unenviable; and therefore undesirable. It rarely happens, too, that the points in dispute remain the same as in the first instance. Language is misunderstood, and clearness of perception largely interfered with, by involuntary prepossessions or insufficient examination. Of this, we have an example in the Rejoinder of Dr. Bowditch to Dr. Paine's Reply, (supplement to Boston Med. Journal, June 16, 1841,) in which Dr. Bowditch states that

¹ Psychology; or a View of the Human Soul, including Anthropology. Adapted for the use of colleges. By Rev. Frederick A. Rauch, D. P., late President of Marshall College, Penn. Second edition, revised and improved. 8vo. pp. 401. New York, 1841.

we have accused him of being too severely personal. His words are—"Moreover, having been accused of being too severely personal, (Dunglison's Journal,) it gratifies me to find that one journal in this country sustains me, (Baltimore Medical and Surgical Journal,)" &c. Our remarks, (Oct. 15, 1840,) were—"The author (Dr Bowditch) is an estimable individual; but his zeal for a favourite preceptor (Louis) has outrun his discretion. The 'remarks' are polemical throughout, and often—what is always to be deprecated—personal." Dr. Bowditch is not accused by us of being "too severely personal;" nor do we find that the Journal, which he quotes, "sustains" him in being so.

We cite this as an evidence merely of the facility with which new points may arise in pending controversies. The matter had now better rest; already, indeed, the points of discussion are forgotten by most persons; and all that remains, is a vague recollection that an angry discussion had been carried on between two respectable individuals, in relation to something connected with M. Louis.

Water Doctors.—We learn that, in Paris, the homoeopathist is hiding his diminished head before the water doctor, who is the author of the new system

"to make the vulgar stare, Till the swoln bubble bursts, and all is air."

It is strange that the established inanity of all empirical pretensions, from those of Dr. Rock and Dr. Solomon downwards, has not taught the public to profit by experience. They are as ready as ever to follow in the wake of every advertising quack. The second number of the New York Gazette animadverts with propriety on the system for notoriety and pelf, pursued by men who are in the ranks of the profession, and who stoop to the vilest of charlatanry, only to be equaled by the vendors of razor strops, bear's grease, &c. The true vehicles for professional communications are the medical journals, and we trust—with the editor of the London Lancet—"that before long, no greater condemnation can attach itself to the reputation of a medical man, than to have his name vaunted, and his deeds praised, in the ignorant effusions of the political journals."

Stewart on the Diseases of Children.—In speaking of this work, recently published, the editor of the Boston Medical and Surgical Journal remarks—"Should the present race of medical critics be sparing of praise, it is quite certain that posterity will do justice to the patience, genius, and professional attainments of the author." We doubt not that this praise is merited; but for ourselves we wish to say, that the reason why we "are sparing of praise" is, that the work has never been sent to us; and we suspect that such is the case with other "medical critics" besides ourselves. It is a common law with editors, that in order for a book to be noticed at all, it must come before them in the legitimate mode.

Medical College of Ohio.—The Annual Catalogue for 1840-41 contains the names of 130 students: of whom there were from Ohio, 95;

Indiana, 9; Illinois, 3; Kentucky, 7; Louisiana, 1; South Carolina, 1; Mississippi, 1; Massachusetts, 2; Virginia, 1; New York, 3; Missouri, 1; Pennsylvania, 5; Canada, 1.

The number of graduates was 31.

William and Mary College, Virginia.—We find by the Annual Catalogue of this old and respectable institution, that Professor Millington undertakes a class for medical instruction, for which he possesses ample means of illustration. The subjects taught in the first session, are anatomy, physiology, materia medica, and pharmacy. In the second session, anatomy of the nerves and organs of sense, pathology and therapeutics, operations of surgery, materia medica and pharmacy continued and concluded. The text books are the same as those used in the principal medical colleges.

Pennsylvania Medical College.—Dr. R. M. Bird has been appointed to the vacancy occasioned by the death of Dr. Colhoun. Dr. Bird is an estimable and accomplished gentleman.

Medical College of the State of South Carolina.—The Annual Report—which contains an able valedictory address to the class, by Prof. Dickson—gives the names of 51 graduates: of whom 41 were from South Carolina; 4 from North Carolina; 4 from Alabama; and 2 from Georgia.

Dr. Geddings has been transferred to the surgical chair vacated by Dr. Wagner, owing to ill health.

Vermont Academy of Medicine.—The Annual Catalogue and Circular of the Vermont Academy of Medicine for the session of March, 1841, contains the names of fifty-four medical students.

Medical Department of Transylvania University.—Dr. E. Bartlett has been appointed to the chair of the theory and practice of medicine, vacated by the able teacher, Dr. N. R. Smith, of Baltimore.

Berkshire Medical School.—Dr. James M'Clintock, Professor of Anatomy in the Vermont Academy of Medicine, has been appointed to the same chair in the Medical School at Pittsfield, Mass.

Poisoning by Solution of Acetate of Lead—Lead found in the Urine.!—A young girl of good constitution, driven by despair to suicide, took about an ounce of acetate of lead in solution. She was almost immediately seized with collapse and syncope, and afterwards with vomiting and convulsions. Sugared water, sulphate of magnesia, and sulphate of soda, were given, but she died in twenty-five hours. She voided a large quantity of urine, which M. Villeneuve sent to M. Orfila. Carbonised, treated by nitric acid, and submitted to the tests of the salts of lead, this urine afforded a sensible quantity of lead.

¹ Journal des Connaissances Médico-Chirurgicales, Janvier, 1841; and Brit. and For. Med. Review, July, 1841, p. 249.

On the Employment of Arsenious Acid in Phthisis Pulmonalis. By M. Trousseau. —M. Trousseau is now making trial of the powers of arsenic in phthisis at the Hospital Necker; a means, however, not new, as Dioscorides employed fumigations of the sulphuret of arsenic in the same disease. During some few months, M. Trousseau has submitted eight patients to the action of this agent. In four affected with diarrhæa, the disease continued its progress; it was in an advanced stage, and death occurred in the usual manner. In four others, notwithstanding vast caverns, and symptoms which announced approaching death, the symptoms amended under the influence of arsenious fumigations, the general health improved, appetite returned, digestion was good, emaciation checked, and the cough and expectoration diminished.

A sheet of white paper is dipped in a solution composed of one part of arseniate of soda and thirty parts of water. The paper is then made into little cigars of the length of a finger, and the patient is directed to smoke one, or even two, daily, in such a manner that the summer may pass into the lung. This is readily accomplished, by the patient inspiring the moment the summer than the mouth. This inspiration of arsenious vapour at first causes slight cough, but after some time both cough and expectoration are

much diminished.

This means, though it has not as yet cured phthisis, deserves a trial. In one case of chronic catarrh with emphysema, it rapidly removed symptoms of suffocation. Careful experiments should be made with this remedy, for phthisis is a disease hitherto so incurable, that any thing which affords any probability of effecting permament good is worthy of investigation.

On Tincture of Iodine as a topical Application to Phagedenic Chancres. By. M. Ricord.\(^2\)—After a trial of all the most common topical applications recommended in the treatment of phagedenic chancre, M. Ricord finds them all frequently inefficacious, and from none has he obtained such prompt and happy results as from the tincture of iodine. He has employed this tincture during the last three months, and almost constantly obtained a prompt modification of the ulcerated surfaces, which soon lose their phagedenic character. This has occurred in many cases. The action of the iodine was particularly evident in a patient who had an open bubo, the ulceration being phagedenic and very extensive. Various means were employed during two months without success, when the tincture of iodine alone so modified the ulcerated surfaces, that their extent visibly diminished from day to day. The iodine of potassium had been given in this case without effect, but its use was continued conjointly with the tincture of iodine as a topical application. The cure was perfect in less than a month.

Ectropion cured by Autoplasty. By M. Bérard.3—M. Bérard presented to the academy a young butcher, whose inferior eyelid, all except the free border, had been destroyed by a malignant pustule. After having arrested the progress of this terrible disease, M. Bérard sought to repair the loss of substance, and prevent greater depression of the free border of the eyelid already affected by ectropion. A portion of integument was taken from the temporal region, and applied just below the inferior eyelid. The superior border of this slip became united to the inferior border of the eyelid, and its inferior border to the superior edge of the malar integuments. The whole

² Ibid. p. 252.

¹ Bulletin Général de Thérapeutique. Février 15 et 28, 1841; and Brit. and For. Med. Review, July, 1841, p. 249.

³ Bulletin de l'Académie Royale de Médecine. Mars 15, 1841; and Brit. and For. Med. Review, July, 1841, p. 252.

was maintained in apposition by simple agglutinatives. Four months after the operation, the wounds are cicatrised, the new eyelid is perfectly vital, and of a tint precisely similar to that ordinarily seen in the situation which it occupies.

Jaundice from Non-Elimination, together with Remarks on the Pathological Condition and Chemical Nature of the Bile. By W. H. Lowe, M. D. Dr. Lowe rejects the doctrine as purely hypothetical, that when jaundice appears suddenly, and without premonitory symptoms, it is due to spasm, or to the opposite condition, paralysis of the gall-ducts. Jaundice from non-elimination may take place, either with the liver in a state of disease, or when there is no appreciable disease in that organ. Of the latter species, Dr. Lowe furnishes a single case of his own, and refers to others. According to Le Canu, three views are entertained by chemists of the condition of the blood of icteric patients. Some believe that it always contains bile; others, that it contains none, but only a particular colouring matter; others adopt a middle view, and think that the blood of such patients, without containing all the constituents of bile, holds its colouring principles.

Dr. Lowe, without attempting to offer an exact analysis of the bile, gives the result of some experiments of his own, "which have been conducted on a somewhat extensive scale." He endeavours to show that the resin of Gmelin, the picromel of Thenard, and the choleic and choloid acids of Demarcay, are "one and the same thing." We must refer our readers to the

author's paper, for the experiments on which he grounds this view.

Observations on Dropsy of the Pericardium. By John Mackenzie, Esq., Surgeon.2—The diagnosis of hydrops pericardii is still involved in obscurity and uncertainty. The difficulty connected with this subject arises from the rare occurrence of the disease unassociated with effusion into the pleural cavity, and to the still rarer opportunities of verifying such cases as do occur, by post-mortem examination. Having for several years been attached to a large military hospital in Russia, where chronic inflammation of the pericardium and consequent effusion were frequently met with, and where every facility of examining the bodies of those who died was afforded, I observed that, in those cases where there was co-existing effusion into the pleural cavity, the patients, from the commencement of the disease, could not bear the horizontal posture; and that, where the effusion was confined to the pericardium, the patients preferred to be with the head remarkably low, till general effusion took place, and the breathing became laborious: of these, some preferred to sleep on their face, inclining to the left side, in such a manner as to make the region of the heart the most depending part, whilst others lay on their back. After death, I found in some of these cases that the pericardium occupied nearly the whole of the chest, and contained from six to ten pounds of fluid. In two cases there was not a vestige of the left lung to be found, except a thin layer of cellular substance.

The reason why the horizontal posture was preferred in these cases, appears to be, that the weight of the pericardium was taken off the diaphragm and rested on the spine or the ribs. It is to be observed, that in hydrothorax, when the patient lies with his head low, the water in the chest flows back and presses on the root of the lungs, preventing a fresh ingress of air, and thereby causing dyspnæa and sense of suffocation; and that in hydrops pericardii this cannot take place, in consequence of the water being inclosed in a firm bag, which is bound down in its place by its attachment to the diaphragm. A very singular case of this disease came under my observation,

² Lancet, April 17, 1841.

¹ Edinburgh Medical and Surgical Journal, April, 1841.

where the patient could lie in all postures equally well, and experienced no inconvenience whatever; yet after death, which was caused by a sudden attack of inflammation of the right lung, the pericardium was found to occupy the whole of the left side of the chest, from the clavicle to the diaphragm, and contained ten pounds of thick brown fluid.

New Method of employing Iodine in Phthisis. By A. Leigh, M. D., Jersey.'—I direct the patient to apply a sufficient quantity of iodine ointment on the ribs, under both axillæ, and to cover the head with the bed-clothes, to breathe the iodine volatilised by the heat of the axillæ; the ointment produces counter-irritation on the skin where it is applied, and is to be repeated according to circumstances. This method has appeared to me to arrest the progress of the disease.

Case of Neuralgia Facialis cured by Operation. By T. T. Lambert, Surgeon, Hull. E. L., a female, aged sixty-three, had for several years been affected with a most painful condition of the nerves of one side of the face, coming on in paroxysms of the utmost severity, mostly towards night. At various times she had tried most of the usual remedies, without experiencing any thing but temporary alleviation. Under these circumstances, as the branches of the facial nerve seemed to be principally affected, the pain shooting across the cheek down towards the lower jaw, and occasionally upwards towards the temple, I proposed the division of the facial nerve in the parotid gland, after its exit from the foramen. To this the poor woman gladly consented, and I proceeded to perform the operation by making an incision betwixt the mastoid process and the lobe of the ear. My next incision brought me in contact with a nerve, which I supposed, from its situation, to be the auriculus magnus nerve, one of the ascending branches of the cervical plexus. On raising this nerve with my forceps, a state of tension seemed to be produced upon all the nerves of the face which were affected with the pain, and the patient exclaimed that was the place from whence all her pain proceeded. Under these circumstances, as the operation for the division of this nerve is trivial, compared with the division of the facial, and as it was just at hand, I determined to try the effects of its division; and the result was most satisfactory: the woman passed a delightful night, and enjoyed some good sleep. The next day she had a little pain; and from that time to the present she has been perfectly well, except having, on one occasion, a very trifling degree of pain. Four months have elapsed since the performance of this operation; and during this interval the patient has been exposed to the intense inclemency of the recent winter. I am not one of those who would pay too much attention to a solitary case; yet, as a single fact, this seems to me to be important, inasmuch as the means employed have effectually cured, for four months at least, and I hope permanently, a very severe case of neuralgic pain.

On the Use of Splints in Chorea. By G. Southam, Surgeon, Salford.3—I was led to try the experiment of confining the affected limb in splints, having frequently observed, in those instances where the convulsions had continued in spite of all remedial means, that if the patient's attention be directed to the deranged muscles, as, for instance, when in the hand and arm, causing him to grasp the sides of a chair, the motions comparatively cease; and this, when frequently repeated, proved a useful auxiliary in

¹ London Medical Gazette, May 28, 1841.

² Ibid, March 12, 1841.

³ Ibid, May 7, 1841.

removing the disease. Upwards of two years ago, a case came under my notice where the convulsions had existed in the hand and arm for six months, though a variety of means had been adopted for their removal: believing them to depend on habit, from the control the patient had over the motions, and his apparently excellent health, I had recourse to the splints. For the first few days, the twitchings, from their violence, caused some difficulty in keeping the splints firm, but they soon diminished in force, and in three weeks had entirely disappeared. I have tried the same treatment in four other cases. In three, after attending to the bowels, I applied the splints, and continued them until a cure was established, which occupied in none more than a month. The convulsions were confined to one of the upper extremities, with slight dragging of the leg of the same side; but as the symptoms left the arm, the power over the leg returned, The other case occurred in a youth fifteen years of age. The convulsions were more severe, and rendered it extremely difficult to keep the splints firm with an ordinary bandage: to obviate this inconvenience, I used the apparatus recommended by Velpeau for fractures, with the addition of small splints to keep the limb extended and at rest during the consolidation of the apparatus. This was removed in a week to allow of exercise; and the severity of the convulsions being subdued, a common bandage and splints were again used. Though the convulsions affected both arm and leg, and splints were only applied to the former, the boy had recovered the use of both extremities in six weeks.

NECROLOGY.

The late Dr. Hope.—We regret to see, by the last number of the British and Foreign Medical Review (July, 1841), that the able author of the work on Diseases of the Heart, which is known by reputation to most, if not all, of our readers, died on the 15th of May last, at the age of 40, of pulmonary consumption.

Dr. M'Nevin.—We announce with regret the death of Wm. James M'Nevin, M. D., of New York, late Professor of Chemistry in the College of Physicians and Surgeons, and Professor of Materia Medica in Rutger's Medical School. He died on the 12th of July, at the advanced age of 79.

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ART. I.—CASE OF CYNANCHE LARYNGEA.

BY JOSEPH PANCOAST, M. D.

Professor of Anatomy in Jefferson Medical College of Philadelphia.

George Faus—a child of four years, healthy, well formed, and active—had been subject, occasionally, for two years, to tonsillitis, with enlargement of glands of the neck, and a tendency to laryngeal inflammation.

In one of these attacks, I attended him some months ago. I was again called to him July 5, 1841. He had been three days sick, with sore throat, swollen tonsils, and enlargement of cervical glands. For the last twentyfour hours, he had had stridulous breathing, the inflammation having extended into the larynx. He was bled, leeched to the neck—puked with a combination of calomel, tartar emetic, and ipecacuanha—blistered at the nape of the neck, and over the top of the sternum; swabbed in the throat with a tincture of honey and sulphate of copper, and touched with lunar caustic. The disease yielded in the fauces, the swelling of the ton-sils diminished, but, after thirty-six hours of apparent improvement, reappeared, without any known cause, with increased energy in the larynx. The breathing became gradually, in spite of the treatment, more noisy and oppressed, with heaving of the sternum, congestion of veins of neck, and suffusion of face. He expired on the 11th of July, suffocated by the false membrane in the cavity of the larynx. There was no indication of disease of the brain. The child's intellect was good to the last. From auscultation, there was no reason to suspect inflammation of the lungs. The child might probably have been saved by tracheotomy, which I urged on the parents, but to which they did not consent till it was too late to be of any

Dissection of Thorax and Neck, July 12.—All the large cervical veins, and all the cavities of the heart, filled with black coagulated blood. The thymus and thyroid glands were larger than usual at that age. The deepseated cervical and bronchial glands were unusually large, several being of the size of an almond shell. There were no pleuritic adhesion, no water in the chest, and but a teaspoonful or two in the pericardium. The lungs of both sides were every where crepitant, but engorged with blood and serum, exhibiting no manifest signs of pneumonia. The tonsils but little enlarged. Some superficial excoriation at the lower part of pharynx, caused, probably, by the use of caustic. The epiglottis red and injected; the mucous membrane, surrounding the upper opening of the glottis, swollen and of a pur-

plish red hue, from the intensity of the inflammation. The whole cavity of the glottis was blocked up with a secretion of creamy tenacious lymph. On opening the trachea, the false membrane was seen to terminate abruptly about half an inch below the cricoid cartilage. The mucous membrane of the trachea and bronchia was slightly red, and injected as in catarrh, and much frothy mucus was seen at the bifurcation of the trachea. Not a flake of false membrane was found lower than half an inch below the larynx. The sound emitted by the child in breathing, was sharper and dryer; in other words, more laryngeal, and less tracheal, than in ordinary croup.

ART. II.—ENDERMIC USE OF SULPHATE OF QUININE IN INTERMITTENTS.

Extracts from letters of Dr. G. Lane Corbin, dated Lancville, Warwick Co., Va., to Dr. John Redman Coxe, on the utility of the external application of sulphate of quinine in the cure of intermittents.]

"I have lately had a long standing and tormenting patient with intermittent fever of two years' continuance, during which period, every article hitherto recommended was tried with little or no perceptible advantage. Twenty-four hours before the expected ague, I applied five blisters, which were kept on eight hours. They drew very well; the places were washed with soap and water, and the dead cuticle removed from each sore, which were then coated with sulphate of quinine, which was reapplied as long as they continued to discharge. The patient has had no return of his ague, and has enjoyed very good health ever since.

"A few days ago I was called to a child with ague and fever, as its parents informed me, of six months' standing. I applied a single blister over the abdomen, which raised the skin sufficient for removal, and after ablution, as before, the quinine plaster was applied with the happiest result. Now both of these patients had taken many different articles previously to the employment of the quinine plasters, and possibly this previous treatment might have

aided in the ultimate cure, &c.—May 29, 1841.

July 20.—"In my last, I mentioned the success that had attended the use of sulphate of quinine in old cases of intermittent fever. I now add two

more to the number.

"E. S., aged twenty-eight, complains that for eighteen months he has been a martyr to ague and fever. At no one time during that period has he been free from it three weeks at a time. Appetite good—bad complexion great weakness, and occasional shortness in breathing. Ague every other day at 11 o'clock-bowels open, discharges thin, and not very bilioustongue clean, and of a bluish hue. Ordered five blisters to the stomach and each extremity, to be applied an hour before the expected attack, and to remain on eight hours; the skin to be then removed, and the following plasters applied-of sulphate of quinine 5 drams, simple cerate 4 oz., incorporated well together, and spread of the thickness of a blister. The application to the abraded surface was continued until the places became well. If the patient complains very much of the irritation, the plasters to be removed after the first twenty-four hours, the parts to be bathed with milk and water, and then reapplied. This patient has had no return of the ague, and only one disagreeable symptom, viz. strangury, which was relieved by nitre and demulcents.

"A girl of seventeen, irregular in her menstrual periods, had been treated by a physician with aloetic pills, and vol. tinct. of guiacum, for eight months, with partial relief as to the menstruation, but none as to the ague; feet somewhat swelled, and slight swelling under the eyes; her bowels irregular, sometimes very constipated, at others, loose and watery. I ordered six grains of blue mass every night; and two hours before the expected ague, to apply a large blister over the stomach, and one to each thigh, for twelve hours, treating the sores as above. The results were the same. The blue pill was continued only three nights. In this case, the sores mattered for five weeks, and the girl experienced great pain from the plasters, but she had no return of the ague after the first application of the quinine. I attributed the uncommon irritation more to the peculiar temperament of the patient, than to the effects of the quinine."

ART. III.—Analytical Account of the Researches and Rectifications in the practice of Auscultation and Percussion, made by Dr. Joseph Skoda, Teacher of Clinical Medicine in the Hospital of Vienna. By WILLIAM DRYSDALE, M. D. and JOHN R. RUSSEL, M. D. 1

[Of the work of Dr. Skoda, and of the nature of his researches, a short sketch will be found in the second department of this Journal. Our limits do not allow us there to introduce so fully as they deserve, the researches of the author, and the rectifications which these researches have led him to propose. But we have great pleasure in inserting here the following account by two learned young friends, who have spent a considerable time in Vienna, and who attended the lectures, and enjoyed the benefit of the personal instructions and observations of Dr. Skoda. This account is the more valuable, that it was prepared upon the spot, and almost under the eye of Dr. Skoda, and was from time to time read to him as it was prepared, and therefore is most likely to contain a correct and faithful account of his views, which, it will be observed, are not less remarkable for their originality, than for the number and importance of the rectifications which the author introduces.—Editor of the Edin. Jour.]

I. Auscultation.

The auscultatory phenomena of the respiratory organs may be divided into those of the voice, the sounds of respiration, and those produced by the

rubbing of the pleura.

On examining the chest of healthy persons, it will be found that the sound of the voice is heard to a certain degree, amounting to strong resonance in some parts of the chest, while in others it is either not heard at all, or merely as an indistinct humming or buzzing sound. The strength of the sound thus heard in healthy persons, is greatest between the shoulder-blades and the spines, weaker under the clavicles, and still weaker in the axilla, and over the rest of the chest; but it varies very much in intensity in different individuals. In disease it is so much modified, both in intensity and in the parts of the chest where it is heard, that many important indications may be derived from the varieties which it assumes.

Before considering the different kinds of resonance in detail, it is necessary to give an explanation of the mode in which the sound of the voice is

transmitted through the chest.

As the voice is produced in the larynx, it must in all cases, whether weakly or strongly heard, be transmitted thence; and it would at first sight appear that the strong resonance is produced by a good, and the weak by a bad conducting power of the parts lying between the larynx and the parietes of the chest. Accordingly, it was long almost universally held by stethoscopical observers, that the increased resonance which accompanies a hard compressed state of the parenchyma of the lungs, or the presence of fluid in

the pleura, depends on the increased conducting power of the intermediate substance. Several pathological facts, however, tend to throw doubt on the

correctness of this explanation.

For example, if the chest be examined by repeated auscultation at successive intervals in the course of pneumonia, when there is hepatisation of the lung, resonance of the voice, at one time very strong, at another only weak, will be perceived, while the other signs, particularly percussion, show that no change has taken place in the degree of hepatisation. The cause of the occasional disappearance of the resonance of the voice, is the obstruction by fluid matter of the bronchial tubes of the hepatised portion of the lung; for the resonance reappears readily when the patient makes a deep inspiration, or coughs. This disappearance and return of the resonance, while in other essential particulars the hepatisation remains the same, does not accord with the commonly assigned cause; for, according to it, it would be a matter of indifference whether the bronchial tubes contained air or not. In pleuritic effusion into the cavity of the chest, the intensity of the resonance of the voice diminishes as the quantity of the exudation increases; while the contrary should happen, if the increased distinctness of the voice, at any stage of the effusion, depended on the superior conducting power of the interposed fluid. These contradictions to the commonly received explanation, demand more minute examination of the grounds on which it has been adopted.

The question of the superiority in conducting power of dense over rare bodies, has been too much regarded as an abstract law, without paying sufficient attention to the particular circumstances which may modify or prevent its operation. It is quite true that dense bodies conduct the sound more readily than rare ones, but only if the sound be confined to the medium in which it is formed, for it passes with difficulty from one medium to another. For example, the slightest scratching at the end of a long pole is heard distinctly when the other end is placed in contact with the ear, while, if this be not done, (i. e. if the sound be transmitted by the air,) nothing at all is The striking together of two stones under water, when the head is immersed, is distinctly heard, while no sound is audible when it is taken out. On the other hand, the human voice which is formed in the air, is heard furthest in that medium. When the head is dipped into water, sounds produced in the air are heard very faintly, or not at all; and solid substances, as a board or a wall, interrupt sounds more or less completely. of physics teach us further, that sound is more or less reflected in its transmission from a rare medium to a denser one, and that the new medium takes up less than would have been propagated in the same space had it remained in the medium by which it had been till then transmitted; and the less sound is taken up by the new medium, the greater the difference of consistence and coherence between the two media. The reason why enclosed passages and tubes, whose walls are of solid materials, conduct sounds better than the open air is, because they reflect the vibrations, which are thus confined to a small space, and prevented from being dispersed and lost in the surrounding air. If the walls of the tube were instrumental in conducting the sound, it is singular that a hollow tube should be used as a stethoscope, and not a solid cylinder of wood or metal. The voice, therefore, reaches the parenchyma of the lungs, not through the solid parts, but through the air in the trachea or bronchia, and ought to be carried further in the healthy lung, in which the air penetrates into the air-cells, than in the hepatised lung, where the air-cells and smaller bronchia are obliterated. The vibrations, likewise, should pass more easily from the ear into the light tissue of the healthy lung, than to the condensed parenchyma of the hepatised one, according to the law explained above.

A consideration of these facts would be almost sufficient in themselves to prevent us from acquiescing in the ordinary opinion, that the reason of the voice being louder when the lung is hepatised, than when it is sound and spongy, depends upon its being better conducted by the tissue of the lung

when dense, than when in its natural condition. Moreover, Dr. Skoda has set this matter at rest by the following simple experiment, which he usually performs in the presence of his class, and which any one may easily repeat.

If the ear be applied to a stethoscope placed successively on corresponding parts of a sound and then of a hepatised lung removed from the body, the voice of another person who speaks through a stethoscope placed upon the lung at an equal distance in both cases, will be heard somewhat more distinctly in the sound than in the hepatised lung: but the distinction is so insignificant, that were the reverse the case, it would not account for the very marked difference in such a condition of the lungs in the living subject.

Dr. Skoda explains the different degrees of strength of the voice in the

chest by the law of consonance.

The fact that a sound can be heard, observes Dr. Skoda, as distinctly at a distance as at the place where it is produced, can only be explained either by its diffusion being prevented, and its being obliged to remain concentrated during its progress, or by its being reproduced in its course by means of consonance, and thus increased. But if a sound be heard louder at a distance than at the place where it was originally formed, this must be by means of consonance alone.

Consonance is a term adopted by Dr. Skoda to express a well known

phenomenon; and it may be here properly explained.

A tense guitar string sounds in unison with a note produced in its vicinity, either by another musical instrument or by the voice. A tuning fork held in the air, emits a much weaker sound than when placed upon a table or chest. The table or chest must increase the intensity of the sound, by assuming the same vibrations as the tuning fork, or, in other words, by consonating with it. The note of a Jew's harp is scarcely perceptible when it is struck in the air, and it is heard much more distinctly when played in the mouth. Thus the air in the mouth must increase the sound of the Jew's harp, i. e. must consonate with it.

It sometimes happens that the voice is heard more strongly at the thorax than at the larynx, which in itself is sufficient to show that its strength is increased by means of consonance within the chest. The different degrees of the intensity of the voice heard at the thorax, may be explained by the different strength of the consonance within the chest. To ascertain these changes, we must discover what it is within the chest that consonates with the voice, and by what circumstances the consonance is liable to be altered.

The voice, as it issues from the mouth, is composed of the sound formed at the larynx, and the consonating sounds produced in the pharynx, mouth, and nasal cavities. This is shown by the alteration the voice undergoes by the shutting and opening of the nostrils and mouth, while there is no change made in the larynx. The pitch of the voice is evidently fixed by the larynx alone, and the opening and shutting of the nostrils and mouth has no influence upon it; the articulation of the voice, however, and its timbre, depend upon the mouth and nostrils.

As it is certain that the air in the pharynx, mouth, and nostrils, consonates with the sound formed in the larynx, there can be no doubt that the air in the trachea and bronchia may also be thrown into consonant vibrations with the sounds formed at the larynx. Hence it is the air in the chest, and not the parenchyma of the lungs, which consonates with the voice at the larynx, as the latter seems ill adapted for consonating, being neither stiff nor sufficiently tense. Those substances, such as air, tense strings, membranes, slips of wood, and thin plates, in which a musical sound is most readily produced, are most easily thrown into consonant vibrations.

Air can consonate only when confined within a circumscribed space. In the open air, the human voice and every other sound is heard more feebly than in a room. The air confined within the box of a guitar, violin, piano, &c. consonates with the note struck on the strings, while the sound is not increased by the consonance of the external air. The strength of the con-

sonance depends upon the size and form of the space in which the air is confined, and upon the properties of the walls which bound the space. It appears that the consonating sound of the enclosed air will be the stronger, the more perfectly the walls reflect the sounds which spread through the air. A space surrounded by solid walls produces the greatest consonance, while in a linen tent the sound is but little increased. The cause of the strengthening of sounds by the speaking-trumpet, is well known.

The air inclosed in a defined space does not consonate with every sound; and should it consonate with several different notes or sounds, it does not reproduce them all with the same degree of strength and clearness. No body can sound in consonance with another, unless it is itself capable of producing the same note, or one whose vibrations form an aliquot part of the

note. (Baumgaertner's Physik 4 Ausgage Bd. I. p. 276.)

The deductions drawn from the physical principles just referred to, may be used in explaining the consonance of the voice in the chest. The air in the trachea and bronchia can consonate with the voice in as far as their walls resemble the walls of the larynx, mouth, and nasal cavities, in their power of reflecting sound. In the trachea, the walls of which consist of cartilage, the voice consonates almost as strongly as it sounds in the larynx. In the two branches, also, into which the trachea divides, the consonance must be nearly as perfect. On the entrance of the bronchia into the parenchyma of the lung, they have no longer cartilaginous rings, but merely thin irregular plates of cartilage interspersed in the fibrous tissue. As the bronchia ramify, these plates become smaller, thinner, and less numerous, and at last disappear altogether; and the finest twigs of the bronchia consist merely of membranous canals. In the normal state of the parenchyma of the lung, the air in the bronchia consonates less strongly with the voice than that in the trachea, in proportion to the smaller number of cartilages they contain. The conditions which increase the consonance of the voice in the air contained within the branches of the bronchia that ramify in the parenchyma of the lung, are either that the walls of the bronchia have become cartilaginous, or, if still membranous, very thick, or that the surrounding tissue of the lungs has become devoid of air; -in all these conditions the walls reflect the sound more strongly than the membranous walls of the normal bronchia; and there must be no interruption of continuity between the air in the bronchia and that in the larynx. If the air in a confined space be thrown into either original or imported autophonous vibrations, which give rise to sound, the surrounding walls not unfrequently partake of the same vibrations, and they do this the more readily the less stiff and hard they are.

The organ pipe vibrates when the air contained in it sounds. The same is true of the speaking-trumpet. The larynx vibrates with every sound produced in it, and its vibrations are perceptible through several inches of animal substance. The walls of the bronchiæ, which ramify within the parenchyma of the lungs, will, if the air within them consonate with the voice, be thrown into vibrations as readily as the larynx, and these vibrations may spread through a layer of fluid or muscle several inches thick, even to the parietes of the thorax, and the sounds produced by consonance in the bron-

chiæ will be perceptible at the walls of the chest.

In order to illustrate the above explanation of the difference of resonance of the voice in the chest, Dr. Skoda performed a considerable number of ex-

periments, a few of which are the following.

As after death the bronchia are almost constantly found filled with fluid, the lungs themselves are rendered unfit for the purpose of experimenting, we must therefore choose other tissues whose powers of reflecting sound resemble severally that of the healthy and hepatised lung.

In this respect, a portion of the small intestine represents pretty well the more membranous parts of the bronchia, and a portion of the heart and liver the hepatised lung. If a person speak through a stethoscope placed on one end of a moderately inflated small intestine, consonant vibrations of the

voice, in the air within the intestine, may be heard by another person listening through a stethoscope placed on the other end of the intestine. If a layer of solid or fluid substance be interposed between the mouth of the stethoscope and the intestine, as, for example, a piece of liver or of intestine filled with water, the sound is heard very indistinctly, and not at all if the

thickness of the interposed substance reaches half an inch.

If a passage be bored in the liver, so as not completely to pierce it through, and this be spoken into by means of a stethoscope accurately fitted into the entrance of it, the voice may be heard along the whole length of the passage, and for a considerable distance on each side, through a stethoscope placed over it, so strong, that it by far exeeeds in intensity the voice proceeding from the mouth of the speaker, which is heard by the free air. The voice can still be heard even when a layer of liver, lung, cartilage, or bone, several inches in thickness, be interposed, although naturally weaker and weaker, as the thickness of the interposed substance is increased. If the liver be plunged in water, it is still heard through a stratum of water two inches thick. Similar experiments may be performed with the heart, and with the larynx and bronchi. If a piece of intestine, prepared as in the first experiment, be plunged under water, observing the precaution that no water gets into the stethoscope, the voice is heard much louder than if the experiment be made out of the water.

These experiments show tolerably distinctly what relation the voice in the thorax holds to the different conditions of the lungs. If the voice in the intestine, when not immersed in water, consonate so feebly as to be inaudible through a layer of lung, liver, or fluid half an inch thick, the consonance in the membranous bronchia will likewise be so slight as not to be heard at the walls of the chest. But, on the other hand, as the voice in the heart and trachea, and in the passage bored in the liver, consonated so strongly as to be heard through an interposed substance several inches thick, so will the voice in the bronchia of a lung, hepatised or infiltrated with tuberculous matter, consonate so powerfully as to be heard louder upon auscultation at

the thorax, than as it issues from the mouth.

The consonating voice within the chest differs very much in clearness, loudness, and timbre or quality, from the voice proceeding from the mouth, and varies in itself at different times; but as the cause of these differences is not well understood, and as they do not afford any diagnostic signs, it is unnecessary to enter more minutely into them here.

II. Morbid States of the Respiratory Organs which can give rise to an increased Resonance of the Voice.

1st. All morbid processes, by which the lungs can become void of air, dense, and solid, through infiltration of foreign matters.—The walls of a bronchial tube surrounded with parenchyma, in this condition, must reflect the sound as well or better than the larynx. The strength of the consonance will be the greater, the denser the parenchyma. The diseased processes which bring about this change, are, hepatisation, infiltration of the parenchyma, with tuberculous matter and hemorrhagic infarction, or the pulmonary apoplexy of Laennec. In all these morbid states, before the increased resonance of the voice can take place, all the air must be completely expelled from the air-cells, and the condensed portion of lung must be of sufficient size to contain, at least, one of the larger bronchial branches, which must contain air, and be in communication with the larynx. The more extensive the hepatisation is, the more distinctly will the increased resonance be heard over the hepatised part. Accordingly, it is heard most frequently in extensive hepatisation, infiltration with tubercular matter, and the induration remaining after hepatisation. Incipient pneumonia, lobular hepatisation, (inflammation confined to individual lobules), ædema of the lungs, cause either no resonance, or only a trifling degree of it. Solitary tubercles,

however numerous, cause no resonance, so long as the intermediate tissue contains air. As Laennec's apoplexy of the lungs is a disease only of rare occurrence, it is seldom observed as a cause of increased resonance, espe-

cially as it is, in general, confined to a small extent of the lung.

2. The diseased states through which the lung becomes devoid of air in consequence of compression.—In this state, the lung never reaches the same degree of solidity as in pneumonia or tuberculous infiltration, and, therefore, the resonance is never so considerable as in the latter affections. To admit of resonance being produced by compression of the lung, the compressed portion must contain a bronchial tube, sufficiently strong, from the number of its cartilages, to prevent the obliteration which happens to the merely membranous bronchiæ. Of all the numerous causes of compression of the lung, such as effusions in the pleura, tumours in the chest or abdomen, aneurism and effusion in the pericardium, curvature of the spine, &c. by far the most frequent, indeed almost exclusive, one of increased resonance of the voice, is the presence of fluid or air in the cavity of the pleura.

The quantity of fluid necessary to produce resonance, varies very much in different cases—in some, half a pound being sufficient, while in others

several pounds are required.

Varieties of the voice heard in the Thorax.—In the healthy state, in all parts of the chest, except those immediately to be mentioned, there is heard no proper resonance of the voice, but merely an indistinct buzzing sound; but in the space between the scapulæ, the voice may in many persons be heard with different degress of distinctness, and sometimes so strong that a moderate concussion of the ear may be felt. The same may likewise sometimes be perceived in the spaces below the clavicles, though in a less considerable degree. This resonance of the voice never reaches that degree of clearness and strength which may present itself at any part of the chest affected with hepatisation or tuberculous infiltration.

The varieties in the morbid state are:-

1. Strong bronchophony, i. e. that resonance of the voice attended with simultaneous concussion of the ear, or, as Laennec describes it, which penetrates completely through the stethoscope.

2. Weak bronchophony, the voice without, or with imperceptible concussion of the ear, or which does not penetrate completely through the stetho-

scope

3. The indistinct buzzing, with absence of all proper resonance.

4. The amphoric and metallic echoes.

The Strong Bronchophony.—The voice is heard as strong, or even stronger, or somewhat weaker, than in the larynx. Its appearance at any part of the chest indicates with certainty the existence under the spot of a solid, condensed portion of lung of considerable extent, which may either be in contact with the walls of the chest, or separated from them by a layer of solid or fluid exudation in the pleura of moderate thickness. The presence of fluid in the pleura can never of itself give rise to the strong bronchophony.

The diseased states, whose existence may be suspected from the presence of strong bronchophony, are,—Pneumonia, or pleuro-pneumonia, in an advanced stage, i. e. hepatisation, without any or with a moderate amount of pleuritic exudation; tuberculous infiltration of the parenchyma; hemorrhagic infarctus of considerable extent; thickening of the walls of the bronchia, with complete disappearance of the proper substance of the lung; carnification of the lung, or a very high degree of ædema of the lung, along with pleuritic effusion, by which the air has been completely pressed out of the tissue of the lung. Of these, however, the hepatisation and tuberculous infiltration are so much more frequently indicated, that the others may in practice be almost left out of view, as they are not only very rare, but also seldom reach such a height as to produce strong bronchophony.

Laennec thought that the resonance from cavities was of a peculiar kind, different from bronchophony. He named it pectoriloguy, and conceived it

to be pathognomonic of excavation in the lungs. On close examination, however, it will be found, that of the characteristic signs of pectoriloguy given by Laennec, only one refers to the voice itself, viz. that in pectoriloquy the voice penetrates the stethoscope completely, while in bronchophony it merely enters it; and all the others are only collateral circumstances, such as the circumscribed or diffused extent of the sound, its timbre, the general symptoms, &c. But, as in many conditions of the lung just described, the voice penetrates the stethoscope completely, the distinction proposed by Laennec falls to the ground, and pectoriloguy must be considered as nothing but strong bronchophony, and, therefore, cannot be received as alone sufficient to indicate with certainty the presence of a cavity. As a cavity in a hepatised lung is very rare, while in a tuberculous one it is very frequent, we shall, in the latter disease, when strong bronchophony is heard, seldom err in diagnosticating a cavern at the place where it is strongest; but here our diagnosis does not rest on the character of the voice alone, but is aided by the other stethoscopic signs, and the general symptoms and course of the disease.

Weak Bronchophony.—To constitute weak bronchophony, the voice must be clearly and distinctly heard, but unaccompanied by little or no concussion of the ear. It may attend any of those diseases above enumerated as giving rise to strong bronchophony, and, in addition, pleuritic effusion of considerable extent and hydrothorax. Its presence alone is insufficient to determine the existence of fluid in the pleura, but recourse must always be had to percussion, auscultation of the respiration, position of the neighbouring organs

in making the diagnosis.

Egophony.—A peculiar modification of the resonance of the voice has attracted the attention of stethoscopists, and there has been much discussion (on which our limits do not permit us to enter) to determine its cause and value as a diagnostic sign. It was conceived by Laennec to indicate the presence of a thin layer of fluid between the lung and the walls of the thorax; but later observations have established the fact, that it has been heard in cases of pneumonia and tuberculous infiltration, where there was no fluid at all in the pleura; also in cases where there was a very large collection of fluid in the pleura, and that it has been absent in cases of effusion of various amount; and finally, in some cases of effusion into the chest, as well as in pneumonia, without any fluid being contained in the pleura, individual words or even syllables partake of the trembling or egophonic character, while others are destitute of it. Egophony may be, therefore, regarded as a mere modification of bronchophony, which has no essential connection with the existence of fluid in the chest, and has otherwise no particular importance.

The strong as well as the weak bronchophony passes imperceptibly into the indistinct murmur, and there is no defined boundary between these two sounds. It is easy, indeed, to distinguish between the extremes; but the transition sounds it is extremely difficult to distinguish. No conclusion should be drawn from the resonance of the voice, unless it possesses the un-

questionable character of bronchophony.

3d. Indistinct Buzzing Sounds.—This resonance of the voice affords no definite indication. It does not indicate that the organs are in a state of health, for, as many conditions are required to produce bronchophony, the absence of any one may prevent its appearance, e. g. the bronchial tubes may not be open, but obstructed with mucus, so that the consonance cannot take place, while, at the same, any one of the morbid conditions just mentioned may be present.

III.—Auscultation of the Respiration.

The passage of the air through the respiratory tubes causes in the healthy state certain sounds which are variously modified by disease.

The sounds produced by the respiration in the larynx, trachea, and larger

bronchia, are of a rushing character, most closely imitated by, (as in the pronunciation of the consonant ch, German or Greek χ ,) impelling the air against the hard palate. During gasping it is produced voluntarily. The pitch may differ according to the width of the opening admitting the air, and is generally higher in the larynx than in the lungs; but the character just

mentioned remains always constant.

The respiratory murmur in the air-cells and smaller bronchia, resembles very nearly the sound produced by drawing in the breath with the lips nearly closed, or pronouncing the consonants v or b while inspiring, or, as it were, sipping the air. It is only heard during inspiration; and during expiration, there is heard in the air-cells and smaller bronchia either no sound at all, or a very slight blowing noise between the sound of f and h, pronounced in expiration. The respiratory murmur in the air-cells is heard most strongly and distinctly in children.

Varieties of Respiratory Sounds.—(Skoda.)—1, Vesicular Respiration; 2, Bronchial Respiration; 3, Indeterminate Respiratory Sounds; 4, Ampho-

ric and Metallic Respiration.

The name vesicular respiration can only be applied to that respiratory murmur which resembles sipping air, as above described. No other sound which does not display this character distinctly can merit the appellation, even although occurring in healthy individuals. Such a sound can be produced in no other way than by the penetration of the air into the air-cells. The sound during expiration has no connection with vesicular respiration, for it may be entirely wanting, or may be strong or weak, without in the least influencing our judgment as to the presence or absence of the vesicular murmur. The cause of the vesicular murmur is the friction of the air against the walls of the air-cells and fine bronchial tubes, which, by their contractility, oppose a certain degree of resistance to its entrance. this may also be explained the great disproportion between the strength of the respiratory murmur in the pulmonary cells during inspiration and during expiration, for in the latter the air encounters no resistance. The case, however, is different in the larger bronchia, and more especially in the larynx and trachea, for the air has no resistance to overcome in its passage through these during inspiration; on the contrary, it is rather drawn in by the rarefaction of that within the chest, while in expiration it passes from a larger space—the air-cells into a smaller one, the bronchia, trachea, and larynx, and is consequently compressed; therefore, the expiration is usually louder in those parts than the inspiration. The presence of the vesicular respiration in any part of the lung, is incompatible in it with any of those diseased states which prevent the penetration of the air into the air-cells, viz. compression of the parenchyma by exudation; tumours in the chest; enlargement of the heart; infiltration of the parenchyma, with plastic (that is pneumonic) or tuberculous matter, or with blood, serum, &c. But it can coexist quite well with solitary tubercles, however numerous, and with inflammation confined to single small lobuli, i. e. lobular hepatisation, and is frequently found along with these morbid changes.

The vesicular respiration may be increased to puerile respiration, which depends upon rapid and deep inspiration, and increased resistance of the cells, or it may be rough, from a change in the constitution of the lining membrane of the bronchia. The rough vesicular murmur indicates the least degree of swelling, and is always combined with increased loudness of sound. The vesicular respiration passes insensibly into the indeterminate

respiration, and the rough into the rattles.

The vesicular respiration may occur without any sound in expiration, or such a sound may be present in various degrees of intensity. Sometimes the expiration is much louder than the inspiration. When a sound is present in expiration, it always indicates that there is present in the bronchia some obstacle to the discharge of the air, and this generally consists in a swelling of their lining membrane.

Bronchial Respiration.—To admit of a sound being recognised as bronchial respiration, it must have the same character as laryngeal or tracheal respiration, and can only differ from these in its pitch. It is imitated by blowing through a tube, or with the tongue and mouth, as in the position necessary for pronouncing the consonant ch in inspiration or expiration, as

before explained.

The bronchial respiration indicates precisely the same states as the weak bronchophony, and these need not be again enumerated. But it never occurs in the normal condition of the respiratory organs, and, therefore, it always indicates a morbid state, even when occurring in the space between the shoulder-blades, except in the neighbourhood of the first dorsal vertebra. where it is heard in rare cases in healthy subjects, in dyspnæa, or deep in-

spiration.

The production of the bronchial respiration, like bronchophony, has been attributed by Laennec, Andral, and others, to the increased conducting power of the condensed lung, (which renders the rushing noise of the air streaming in and out of the bronchiæ more audible.) But, in addition to the foregoing arguments, opposed to better conduction of the voice, depending on the condensed state of the lung, the following is conclusive against this opinion. As the bronchia are merely passages for conducting the air into and out of the air-cells, the more the latter are capable of being expanded and contracted, the greater will be the streaming of the air through the air, bronchia, and vice versa. But in the healthy state, where the streaming of the air is greatest, there is no bronchial respiration at all; while, in a completely hepatised lung, where there can be no expansion or contraction of the tissue worth mentioning, and, consequently, no streaming of air through the vesicles, the vesicular respiration is loudest. The true explanation is undoubtedly that of Dr. Skoda, viz. that it is from the air in the bronchia vibrating in consonance with the respiratory sound of the larynx, trachea, and bronchi, the condition necessary for consonance being afforded by the condensed lung, as already explained under the head of bronchophony.

The bronchial respiration can be in pitch higher or lower, and in intensity weaker or stronger, than the laryngeal respiration; differences which depend upon the part of the windpipe with which the air in the bronchiæ consonates, for it does not always consonate with the larynx. These differences depend on other circumstances likewise, which it is unnecessary to detail here.

The cavernous respiration of Laennec differs in no essential particular from bronchial respiration, and cannot be taken as a diagnostic sign of a cavity, unless accompanied by the amphoric or metallic echo.

The respiratory sound, named by Laennec respiration soufflante, and described by him as giving rise to the sensation, when listened to, as if air was drawn from the ear of the auscultator, during inspiration, and blown into it during the expiration of the patient, is merely a strong form of bronchial respiration; and its strength depends not only upon the greater or less distance of the bronchus or cavity in which it is formed, but also upon the rapidity and amount of motion in the lungs, and the more or less perfect

consonance of the parts.

Indeterminate Respiratory Sounds.—Under this term are comprehended all those respiratory sounds which cannot be referred to any of the preceding forms of respiration, or to the rattles or friction of the pleura, to be afterwards described. The respiratory murmur in the air-cells is sometimes so ill-marked, as to be indistinguishable from the respiratory sounds which spread from the deeper bronchiæ or larynx, and a weak rattle at a distance may resemble an indistinct respiratory murmur in the air-cells. As such a respiratory murmur may arise from many causes, it is impossible to say what is the cause in any given case-whether it be the entrance of the air into the air-cells; the stream of air into the larger bronchia, or a distinct rattle, or two or more of these combined. Neither the sound derived from the larger bronchia, when it is not bronchial respiration, nor the indistinct respiratory murmurs, afford grounds for forming any conclusion as to the condition of the parenchyma of the lungs. Such being the case, any subdivision of them is superfluous, and they may be all included under the name of indeterminate respiratory sounds. Although a very skilful ear may be able to detect the transition of the distinct forms of respiration into the indeterminate, yet, whenever a sound is at all doubtful, it is much better to class it among the indeterminate, and to call in the assistance of the other signs and indications in forming a diagnosis.

The Rattles.—The rattles are sounds produced in respiration by the breaking of the air through fluids, such as mucus, blood, &c. and sometimes by its passing over solid substances, such as a fold of mucous membrane, which, in consequence, may be thrown into vibration. Most of these resemble the bursting of bubbles; others are like the creaking of leather, cre-

pitation of salt, &c.

They differ very much in the loudness and clearness with which they are heard; also in dryness and moistness, in frequency, size of the bubbles, &c.; but to describe all these circumstances, would lead into too minute details for the present object.

Division of the Rattles.—1, The vesicular rattle; 2, the consonant rattle; 3, the crackling, or dry crepitating rattle, with large bubbles (râle crépitant sec à grosses bulles ou craquement of Laennec); 4, indeterminate rattles;

5, rattles with amphoric echo.

The vesicular rattle is that produced in the air-cells and small bronchial tubes. Its peculiar character is that the bubbles are very small, and of equal size. It indicates the presence of fluid, such as mucus, blood, or serum, in the finest bronchial tubes and air-cells; and also that the latter are penetrated by the air. Its presence, therefore, shows that none of the morbid conditions which prevent the entrance of the air into the air-cells can exist.

This sound corresponds to the moist crepitation of Laennec, which he considered as pathognomonic of incipient pneumonia. Its occurrence, however, in its pure form, is rare in pneumonia; and it is likewise heard in other morbid affections, such as ædema of the lungs, tuberculosis, and even common catarrh. With the view of obviating this difficulty, Laennec divided it into crepitating and subcrepitating; but, as numerous facts, attested by Andral, Chomel, Cruveilhier, and Skoda, prove that this is not a sufficient distinction, the presence of the crepitating rattle can only be held to prove the existence from some cause or other of fluid in the air-cells, and their permeability by air; and we can only conclude that pneumonia is present, if we discover its other indications.

The consonant rattle is clear, high in pitch, and the bubbles which form it are unequal in size. Such a rattle is produced in the larger branches of the bronchia, and in the trachea; but when heard at the parietes of the chest, after having been transmitted through the lungs by conduction, it loses much of its height and clearness. If, however, the conditions for consonance are present, it is heard of an intensity and clearness equal to that at the place

of its origin.

The consonant rattle is therefore diagnostic of the same state as bronchophony and bronchial respiration; but, as rattles seldom occur in exudation,

it indicates in general pneumonia or tuberculous infiltration.

Laennec's dry Crepitating Rattle.—This sound, according to Laennec, resembles that made by the blowing up of a dry pig's bladder. It is held to be a pathognomonic sign of vesicular and interlobular emphysema; but it occurs only in those cases in which the cells are expanded to the size of a barleycorn or bean, and communicate with a bronchial tube. It occurs also when the bronchial tube is expanded into a sac, and in excavations of the lung, which do not communicate with the bronchia by too wide an opening, and have membranous walls. The cause of the appearance seems to be that the air-cells, from having lost their resilience, instead of contracting during expiration, merely collapse when the air leaves them; and, on the

return of the air on inspiration, are suddenly expanded with a crackling noise.

It is doubtful, however, whether it be possible to distinguish this sound from that made by the presence of tough mucus in the air-cells and finer bronchial tubes.

Indeterminate Rattles.—Under this head are included all those rattles commonly called mucous rattles, which are not vesicular or consonant, and are not accompanied by the amphoric echo. They afford no information as to the state of the parenchyma of the lungs, and therefore indicate merely the presence of fluid in the bronchial tubes.

Amphoric Echo and Metallic Tinkling.—In speaking into an empty earthenware vessel, with a dilated body, there is heard, besides the voice, a peculiar humming sound; this represents the amphoric echo of Laennec. There is likewise heard in the vessel, but better in large spaces inclosed with solid walls, such as chambers, and especially vaults, frequently a metallic echo accompanying the voice, if somewhat loud. This is the metallic echo or tinkling.

In a tube that is not very wide, the amphoric echo is never produced.

In cases where there is a large cavity in the chest, whose walls are disposed to reflect sound, and which contains air, a similar sound occurs. As the conditions for its occurrence are, that the cavity be large and contain air, it has only been met with in cases of extensive excavations of the parenchyma of the lung, and in pneumothorax. Laennec believed that a cavity must contain air and fluid to enable it to exhibit these appearances, and his opinion has been universally adopted. But the presence of fluid is quite superfluous, as both a jar and a chamber produce the sound without their containing any; and if an inflated stomach, in which there is no fluid, be spoken against by means of a stethoscope, the amphoric echo and metallic tinkling are heard within it.

Laennec believed further that the cavern in the lung, or the cavity in the pleura, must communicate with a bronchial tube, to enable the sounds to occur. But only in the rarest cases of pneumothorax does a communication with the bronchia remain, while the amphoric and metallic sounds are an almost constant attendant of this morbid state. In the experiment with the stomach, there was no communication with the external air, and this leads us to the true explanation, which seems to be, that the air contained in one of the bronchial tubes consonates with the voice, and produces vibrations within the cavity of the pleura, or cavern in the lung, from which it must not be separated by more than a thin layer of parenchyma.

The mechanism of these sounds will be easily understood, if we keep in mind that they are merely the peculiar character given to the sounds of the voice and respiration, already described, by their being re-echoed in a space of considerable size filled with air.

The amphoric respiration, or bourdonnement amphorique, arises either from the respiratory sound in a large bronchial tube which opens into a cavity, or the re-echoing, in the pleura filled with air, of the bronchial or consonating respiration in a neighbouring tube.

The metallic tinkling, tintement metallique, may arise from bronchophony, from rattles, or from the agitation of fluid produced by coughing, or violent motion, re-echoing in a cavern, or in the pleura when filled with air. Of these, by much the most frequent cause are the rattles.

BIBLIOGRAPHICAL NOTICES.

Dunglison's Human Physiology.1

We can obviously neither form, nor express with propriety, any opinion of this work; but we may be permitted to extract the notice prefixed to this fourth edition.

"The great advances daily making in the knowledge of the various subjects that appertain to physiology, render the preparation of a new edition of any work, which has received the general favour of the profession, a task by no means easy. In the short period that has elapsed since the appearance of the third edition, the investigations of the physiologist have been so numerous and diversified, as to render it necessary to make many modifications and additions. The extent of these cannot be appreciated by a cursory examination. They have imposed upon the author the necessity for considerable labour. The mere reference, indeed, to the various contributions-scattered through the journals of different countries and languages, as well as contained in ex professo treatises—requires no little time and industry. The author has found it requisite to make the most numerous modifications and additions in the second volume.

"The subject of histogeny or the development of the tissues, although much cultivated by recent physiologists, belongs perhaps more properly to general anatomy, and on this account has not been treated of in extenso in the present work. It was impossible, however, to pass over the recent labours of Valentin, Bischoff, Wagner, Martin Barry, T. W. Jones, and others, without notice.

"The first part of the 'Elements of Physiology' of Dr. Rudolph Wagner, translated by Dr. Robert Willis, with notes by that gentleman and others, has furnished the author much valuable matter. He has likewise added several engravings, to elucidate either topics already touched upon in the work, or such as are new in the present edition, and has endeavoured to place it in all respects on a level with the existing state of the science.

"Philadelphia, August, 1841."

Smith's American Medical Almanac.2

It affords us pleasure to extract the following testimonial, in favour of this useful medical annual, from the British and Foreign Medical Review for

"This is a valuable little work, which we really envy America the possession of; as since Mr. Farr discontinued his admirable almanac, we have nothing of the kind in England. Besides the usual contents of an almanac,

¹ Human Physiology: illustrated by engravings. By Robley Dunglison, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence in Jefferson Medical College, Philadelphia; one of the Secretaries to the American Philosophical Society, &c. 8vo. 2 vols. pp. 579 and 651. Philad. 1841.

2 The American Medical Almanac for 1841. By J. V. C. Smith, M. D. Vol. 3. Continued annually. 18mo. pp. 148. Boston, 1841.

it possesses all the requisites of a daily memorandum book, and contains many valuable statistical and medical documents."

Dr. Smith is preparing the almanac for 1842, and we trust that an extensive circulation may repay him for the trouble he takes to facilitate the labours of his professional brethren.

Ruschenberger's First Book of Natural History.1

It is now universally admitted, that a knowledge of the animal mechanism ought to form a part of common school education. Already the subject has been introduced with great advantage into certain of our schools, and it is but necessary that works like the "First Book of Natural History," should be extensively disseminated, to have it introduced into all.

The First Book of Natural History has been prepared for the use of schools and colleges, by Dr. Ruschenberger, from the text of Milne Edwards and Achille Comte, Professors of Natural History in the colleges of Henry IV. and Charlemagne. Emanating from such competent individuals, the work could not fail to be admirably adapted for the object in view, and as such, we recommend it for general adoption.

Dix on Strabismus.2

The surgeon will find here, addressed to his professional brethren—the only legitimate method of publication—a detail of numerous cases operated on successfully by Dr. Dix, with a short account of the new method, which has excited so much interest both in the profession and the public, and which has been laid hold of by the mercenary, and those who have but little feeling in common with their professional brethren, as a means for acquiring unenviable notoriety. It is strange that so simple an operation should not have suggested itself to the surgeon before the middle of the nineteenth century!

Medical Statistics of the U.S. Army.3

This is a most valuable contribution to medical statistics, for which we are indebted to the enlarged intelligence and public spirit of the officer who presides so ably over the medical department of the army. It is the commencement of an undertaking which ought not to be permitted to flag; and which must be the source of important information, not only to the service, but to the profession generally.

First Book of Natural History; prepared for the Use of Schools. By W. S. W. Ruschenberger, M. D., Surgeon in the U. S. Navy, &c. &c. 12mo. pp. 101. With plates. Philad. 1841.

² Treatise on Strabismus or Squinting, and the new Mode of Treatment. Illustrated by engravings and cases. By John H. Dix, M. D., Member of the Massachusetts Medical Society. 12mo. pp. 105. Boston, 1841.

³ Statistical Report on the Sickness and Mortality in the Army of the United States.

³ Statistical Report on the Sickness and Mortality in the Army of the United States. Compiled from the Records of the Surgeon-General's and Adjutant-General's offices—embracing a period of twenty years, from January, 1819, to January, 1839. Prepared under the direction of Thomas Lawson, M. D., Surgeon-General. Published for the use of the medical officers of the navy of the United States. 8vo. pp. 376. Washington, 1840.

Arnott's Elements of Physics.'

This valuable work has been so long before the public, and so justly appreciated by them, that it may appear a work of supererogation to speak of its sterling worth. It ought to be read by every medical student. The present edition has been carefully revised and corrected, and has been condensed into one volume. It contains all that has been prepared or published by the author.

Parker on the Stomach, and on Syphilitic Diseases.2

The estimate which we place on these works, has been sufficiently shown by our having reprinted them in the "Library." Both of them are well worthy of the attention of the practitioner.

MISCELLANEOUS NOTICES.

Inflation of the Bowels with Air as a Cure for Reus.—In the number of the New York Medical Gazette for August 11, 1841, the editor has collected several cases of obstruction of the bowels, for which inflation of air was successfully practised. It is, as properly remarked in the article cited, an old remedy; yet we doubt much whether it was known to the facetious author of Gulliver's Travels; who, in satirising the wild schemes of various projectors, introduces the identical operation as a discovery of one of the sage doctors of the academy of Lagado.

"I was complaining," says Gulliver, "of a small fit of the colic, upon which my conductor led me into a room where a great physician resided, who was famous for curing that disease by contrary operations from the same instrument. He had a large pair of bellows, with a long slender muzzle of ivory; this he conveyed eight inches up the anus, and drawing in the wind, he affirmed he could make the guts as lank as a dried bladder. But when the disease was more subborn and violent, he let in the muzzle when the bellows were full of wind, which he discharged into the body of the patient; then withdrew the instrument to replenish it, clapping his thumb strongly against the orifice of the fundament; and this being repeated three or four times, the adventitious wind would rush out, bringing the noxious along with it, (like water put into a pump,) and the patient reco-

¹ Elements of Physics; or Natural Philosophy, General and Medical, written for Universal Use, in plain or non-technical Language, and containing new Disquisitions and Practical Suggestions. Comprised in five parts:—1st, Somatology, statics, and dynamics; 2d, Mechanics; 3d, Pneumatics, hydraulics, and acoustics; 4th, Light and heat; 5th, Animal and medical physics. Complete in one volume. By Neil Arnott, M. D., of the Royal College of Physicians. A new edition, revised and corrected from the last English edition, with additions, by Isaac Hays, M. D. 8vo. pp. 520. Philad. 1841.

² The Stomach in its Morbid States; and the Modern Treatment of Syphilitic Diseases. By Langston Parker, M, D., Member of the Royal College of Surgeons, &c. Both works complete in one volume. 8vo. Philad, 1841.

vered. I saw him try both experiments upon a dog, but could not discern any effect from the former. After the latter, the animal was ready to burst, and made so violent a discharge as was very offensive to me and my companion. The dog died on the spot, and we left the doctor endeavouring to recover him by the same operation."

The ingenuity of Swist suggested to him, what he conceived to be a ridiculous operation; but it appears to have been successful, and is not unphilosophical; and therefore in a very different category from the other recorded inventions of the academicians of Lagado—as that of extracting sunbeams out of cucumbers; of reducing human excrement to its original food; of calcining ice into gunpowder, &c.; amongst which it is placed.

Lusus Natura.—We have been pleased to receive from the venerable and estimable Dr. Chatard, of Baltimore, a communication suggested by the case of Lusus Natura published in our last number, by Dr. Thruston. Dr. Chatard states, that in the year 1789 he saw in Paris, a case that greatly resembled the one in this Journal, except that the monster had two heads and two chests, and sucked both breasts of the mother at the same time, appearing to be in good health. It died at the age of four months.

Dr. Chatard refers in his letter to a case of monstrosity, communicated to him by Dr. Villeneuve, of the Académie Royale de Médecine of Paris, in the year 1831. In this case, two fœtuses were united by the crowns of the heads. They measured nineteen inches from heel to heel, making nine inches and a half for each. They were delivered naturally. The placenta was single, with two umbilical cords were attached to it. They died in the birth.

Dr. Chatard adds, that he has, in his collection of cas rares, two fœtuses united like the Siamese, except that they are joined from the upper third of the chest to the pubes, and, consequently, have one abdomen in common. They were aborted at three months.

Medical Department of Kemper College, St. Louis, Mo.—The present faculty of this college is constituted as follows:—John De Wolf, M. D., Professor of Chemistry and Pharmacy; John S. Moore, M. D., Professor of Theory and Practice, and the Institutes of Medicine; Richard F. Barrett, M. D., Professor of Materia Medica and Medical Botany; William Carr Lane, M. D., Professor of Obstetrics and Diseases of Women and Children; and Joseph N. M'Dowell, M. D., Professor of Anatomy and Surgery.

The annual circular contains the names of forty students, who attended during the last session.

Auzoux's Preparations of Artificial Anatomy.—These beautiful and ingenious contrivances, for exhibiting the anatomy of the human body as well as it can be done artificially, can be had by application to Henry Rawls & Co., No. 57 State street, Albany, who have been constituted agents for the same, and who are prepared to receive orders for them at the manufacturer's prices, to which will be added the expenses of importation, and 10 per cent. commission. All orders are executed within sixty or ninety days.

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Albany Medical College-Professor T. R. Beck.-We are glad to see that Dr. Beck's talents as a teacher are not to remain fallow. He has been recently appointed Professor of Materia Medica in the Albany Medical College. He has likewise been chosen Secretary of the Board of Regents of the University of the State of New York.

Medical College of Ohio.—Professor Harrison, of Cincinnati, has been elected to the chair of Materia Medica in the Medical College of Ohio, in the place of Dr. Oliver, who resigned after one year's service.

Philadelphia Hospital.—William H. Gillingham, M. D., has been elected one of the attending physicians of the Lying-in-Department of the Philadelphia Almshouse and Hospital, in the place of Professor James M'Clintock, resigned.

University of Maryland.—Dr. Samuel Chew, of Baltimore, has been appointed to the chair of Materia Medica in the University of Maryland-vacant by the death of Dr. Samuel C. Baker. Dr. Chew is, to our knowledge, a talented and well read physician.

Asylum for the Insane of the Commonwealth of Pennsylvania.- The legislature, at the last session, passed a law for the establishment of a State Asylum or Hospital for the Insane Poor. The appointment of commissioners for the erection of the building, and trustees for the management of the institution, was vested in the governor, who has appointed the following gentlemen:-

Commissioners.—John K. Kane, George Rundle, John W. Ashmead. Trustees.—For one year.—Richard Rush, Dr. George M'Clellan, John White.

For two years.—Isaac Collins, Michael W. Ash, C. Wallace Brooke. For three years.—Jacob Lex, Dr. Robley Dunglison, James Campbell.

The Bill, for the passing of which we have strenuously laboured for the last few years, is as follows:-

AN ACT TO ESTABLISH AN ASYLUM FOR THE INSANE OF THIS COMMONWEALTH.

Section 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assemby met, and it is hereby enacted by the authority of the same, That there shall be erected, as soon as conveniently may be, upon some suitable site to be determined and obtained as is hereinafter provided, a public asylum for the reception and relief of the insane of this commonwealth.

SEC. 2. That three suitable persons shall be appointed and commissioned by the governor to select and purchase a site for said asylum, and to contract for and superintend the building thereof. Provided, That the persons so appointed shall receive no compensation for their services, but their ne-

cessary expenses to be paid in the manner hereinafter prescribed.

SEC. 3. That the site and necessary grounds for said asylum shall not cost more than ten thousand dollars, and the building shall be planned and arranged for the accommodation of three hundred patients and the necessary officers, and with reference to the future enlargement of the same.

SEC. 4. That the governor be and is hereby authorised to borrow, on the credit of the commonwealth, at such times and in such sums as may be required by the provisions of this act, the sum of one hundred and twenty thousand dollars, at a rate of interest not exceeding six per cent. per annum. The said loan shall be styled the loan for the Pennsylvania Insane Asylum, and shall be reimbursable at any time after the expiration of five yearsshall be transferable as other loans of this commonwealth are, and the interest thereof shall be payable semi-annually. And from the avails of the loan, the said commissioners shall have authority to draw on the treasurer of the commonwealth for a sum not exceeding forty thousand dollars on the first day of January, eighteen hundred and forty-two, and for the like sum on the first day of January, eighteen hundred and forty-three, and for the like sum on the first day of January, eighteen hundred and forty-four; and said commissioners shall, on or before the first day of October, eighteen hundred and forty-two, eighteen hundred and forty-three, and eighteen hundred and forty-four, respectively, render to the proper accounting officer of the commonwealth an exact account of all the contracts, expenses, and liabilities, which they have incurred or authorised in the execution of their commission, with vouchers for the same; and in case of their failure to do this, their authority to draw, as aforesaid, shall thereupon cease and become extinct; and said commissioners shall so build, finish, and furnish said asylum, that the whole expense of land, buildings, and furniture, with suitable apparatus for heating the rooms, for cooking, and for furnishing water for all the uses of the establishment, to accommodate three hundred patients and the necessary officers and attendants, shall not exceed one hundred and twenty thousand dollars. Provided, That the commissioners appointed by this act, before entering upon their duties, shall give bond with such security as may be required by the executive for the faithful application of the proceeds.

SEC. 5. That the interest of said loan shall be refunded to the common-

wealth semi-annually, out of the receipts of the asylum.

SEC. 6. That the government of said asylum shall be vested in nine trustees, to be appointed by the governor, who shall serve without compensation; of those first appointed, three shall serve for one year, three for two years, and three for three years, and at the expiration of the respective periods, the vacancies to be filled by appointments for three years; and should any vacancy occur by the death, resignation, or otherwise of any trustee, such vacancy shall be filled by an appointment for the unexpired time of such trustee; the said trustees shall have charge of the general interests of the institution—they shall appoint the superintendent, who shall be a skilful physician, and shall always reside at the asylum, and they shall make such by-laws and regulations as they may think necessary; they shall also appoint a treasurer, who shall be approved by the governor, and give sufficient bonds to the commonwealth for the faithful discharge of his duties, and they shall appoint such other officers and assistants, and fix upon the compensation for their services, as may be necessary for the efficient and economical administration of the affairs of the institution. Said trustees shall have power to take and hold in trust, for the use and benefit of said asylum, any grant or demise of land, and any donation or bequest of money or other personal property, to be applied to the maintenance of insane persons in, or to the general use of, the asylum.

SEC. 7. That in the month of January, annually, the trustees shall cause to be laid before the legislature, a full account of the condition of the institution during the preceding year, and of the receipts and disbursements, both of which reports shall be made up to the end of the year preceding.

SEC. 8. That the proper courts of this commonwealth shall have power to commit to said asylum any person who, having been charged with an offence punishable by imprisonment or death, shall have been declared by the verdict of a jury or otherwise, to the satisfaction of the court, to have

been insane at the time the offence was committed, and who still continues insane.

SEC. 9. That if any person shall apply to any court of record within this commonwealth, having final jurisdiction of offences which are punishable by imprisonment for the term of ninety days or longer, for the commitment to said asylum of any insane person within the county in which such court has jurisdiction, it shall be the duty of said court to inquire into the fact of insanity; and if such court shall be satisfied that such person is by reason of insanity unsafe to be at large, or is suffering any unnecessary duresse or hardship, such court shall, on the application aforesaid, commit such insane

person to said asylum.

SEC. 10. That it shall be the duty of the court, in all cases where they shall commit any person to the asylum, to certify to the trustees the legal settlement of such person, if he or she shall have any legal settlement within this commonwealth; and if such person shall have no such settlement, then to certify the place of residence of such person at the time of offence committed or application made, and the poor district so certified to be the place of settlement or residence of such person, shall be chargeable with the expenses of his or her care and maintenance, and removal to and from the asylum. *Provided*, That the settlement or residence of any such person shall not be so certified, until after due notice shall have been given to the constituted authorities having charge of the poor in the district, to be charged thereby.

SEC. 11. The several constituted authorities having care and charge of the poor in the respective counties, districts, and townships of this commonwealth, shall have authority to send to the asylum such insane paupers under their charge as they may deem suitable subjects for its treatment, and they shall be severally chargeable with the expenses of the care and main-

tenance, and removal to and from the asylum of such paupers.

SEC. 12. That in the admission of paupers to said asylum, precedence shall always be given by the trustees to cases in which the disease is of recent origin; and if the trustees shall in any case deem it for the interest of the asylum, or of the patient, that he or she should be removed, the superintendent shall give notice to those who are responsible for his or her support, and if he or she shall not be removed within thirty days after such notice, the trustees may cause him or her to be removed, at the expense of the person or persons, body corporate or politic, who may be liable for his or her

support

Sec. 13. If the guardians, directors, or overseers of the poor, to whom any patient who shall be in the asylum is chargeable, shall neglect or refuse, upon demand made, to pay the trustees the expense of the care, maintenance, and removal of such patient, and also of the burying such patient, if he or shall die in the said asylum, it shall be the duty of the court of quarter sessions of the county in which such patient was certified to be settled or to have resided, or from which he was removed to the asylum, by any of the constituted authorities therein having care and charge of the poor, upon complaint to the said court made by the said trustees to compel payment by said guardians, directors, or overseers, of all such expenses in the manner directed by law in the case of a judgment against overseers.

SEC. 14. The governor, judges of the several courts of record in this commonwealth, the members of the legislature, and the grand jury of the county in which the same may be located, shall be ex-officio visiters of the institution

Wm. A. Crabb,

Speaker of the House of Representatives.

Charles B. Penrose,

Speaker of the Senate.

Approved this fourth day of March, A. D. eighteen hundred and forty-one.

DAVID R. PORTER.

A few Hints addressed to Medical Students about to Visit the Parisian Hospitals. By a Physician.—These hints, (says the editor of the Medico-Chirurgical Review,') are mostly worth having. We shall take one or two

of them. And first a hint on lodgings and eating.

It is a matter of experience known to all the medical men of Paris, that a large proportion of the medical students are attacked with fever within a very short period of commencing their studies. Now, though this may be accounted for in many ways, and may arise from various causes, yet it is generally allowed that the situation selected for their lodgings is of itself sufficient to be an exciting cause of disease. A more unhealthy situation than some of those small and narrow streets and alleys that abound near the Ecole de Médecine cannot be conceived. In these parts the medical students chiefly reside, for the sake of convenience and economy; here they congregate together in the miserable maisons garnies, living, as they occasionally do, two or three in one apartment. The cheap restaurants, or eating-houses, that also here abound, only add to the general wretchedness of the scene, wherein, under the semblance of comfort and economy, the student is offered his dejeuner à la fourchette for sixteen sous, and his dinner de quatre plats for twenty-two sous. To many, this may appear of little importance, and to be little connected with the subject under consideration; but reason and experience will draw a different conclusion. Is it possible that the body, accustomed to nutritious and healthy food, to all the comforts of English living, to fresh and wholesome atmosphere, can meet with so sudden and so great a change as this, and not be affected by it? What quarter, then, of Paris is to be selected by the student? If the faubourg St. Germain side of the Seine must be chosen, from its contiguity to the hospitals, the rue de Seine St. Germain, or the rue de Sts. Pères, affords a far more healthy and open situation than the localities previously mentioned. True it is, that apartments may be somewhat more expensive, yet surely it is far preferable to sacrifice a small sum of money for the sake of health, than to run the risk of becoming the victim of low typhoid fever The Tuilleries side of the water is colonised to a great extent by the English, and is certainly preferable to the faubourg St. Germain. Here lodgings are to be had tolerably cheap, but depend much on situation. In the faubourg du Roule, the continuation of the faubourg St. Honoré, lodging may be procured at a moderate price, and the situation is very healthy, but it is some distance from Hôtel Dieu, La Charité, La Pitié, &c. It is, however, contiguous to the Hôpital Beaujon, to which M. Louis has lately been appointed, during the alterations that are taking place at Hôtel Dieu. Again, with regard to meals: one wholesome dish in a respectable restaurant's, is far better than four offered for the same money in many of the cheap eating-houses. For two francs, a good dinner may be procured, and a déjeuner or breakfast for thirty sous, in many a clean and wholesome restaurant's. The great difference that exists between French and English living, must more or less affect every constitution, however strong it may be. It is scarcely possible to conceive of two greater extremes. In Paris, there are a set of small hotels which profess to give English dinners. These are generally as dear as they are bad; but one or two are to be found in the neighbourhood of the Boulevards des Italiens, where, at times, a tolerable English dinner is to be met with: in these, as must of necessity happen in places of like description, the company is not of the most select order; but if this can be dispensed with, it is certainly worth the while of those who are suffering from the dyspepsia of Parisian cookery to try for a time the change.

Walking the Hospitals should not be entered upon for the first three weeks after the arrival of the student in Paris. The atmosphere of Paris is very peculiar, and this is exemplified in the numerous patients that enter its hospitals, the victims of its effects on the constitution. It is a question that is

asked of every patient, how long has he been in Paris? The first month is the most trying period; before, then, the student commences his labours, he should, to a certain extent, have become habituated to the change of air; his constitution should have time to accustom itself to the peculiarities of difference.

What Hospitals are worth attending?—Of the Parisian hospitals, there are none that offer such a concentration of medical skill as La Charité. This is situated in the rue des Sts. Pères, and contains between five and six hundred patients. MM. Andral, Cruveilhier, Velpeau, Rayer, Bouillaud, Fouquier, are all to be found within its wards.

He who would learn accurate diagnosis, who would study the use of the stethoscope in its mean, and not in its extreme; he who would learn pathology, by close attendance to the dead house, should follow the service of M. Andral. There are few so free from that national error, excitement, as this

celebrated man.

No hospital is better known to us by name than Hôtel Dieu. It was the largest in Paris, containing at one time twelve hundred beds; but its size is much diminished, owing to the improvements which are being made in its immediate vicinity, which have rendered it necessary to pull down one of

its largest wings.

Of the surgeons attached to this hospital, are men whose names are familiar to all in the profession, as MM. Roux and Breschet. The former makes his daily visit, at half past six in the summer, and at seven in the winter months, and this is followed by his clinical lecture in the amphitheatre of the hospital. M. Breschet commences his rounds at nine o'clock.

There are no less than ten physicians attached to this hospital. Amongst the most celebrated are Chomel, Magendie, and Louis. M. Chomel lectures

from nine to ten on Mondays, Tuesdays, and Fridays.

Another hospital that is generally visited by foreigners, is the Hôpital St. Louis, in which an opportunity is particularly afforded of studying diseases of the skin. It is situated within five minutes' walk of the rue du faubourg St. Martin. One of the streets leading out of this, called the rue des Recollets, will be found the direct way to this hospital, which is situated in the rue de l'Hôpital, directly in front of the canal that is at the end of the rue des Recollets. Here it was that Alibert and Biett collected their vast mass of information, and were to be found morning after morning in the midst of their squalid band of patients. But now no more remains of them than a dirty marble bust of the former—soiled by the hands of the numerous patients that mount the staircase where it is placed—to mark the haunt of this once celebrated man. Time makes sad changes in our profession, as in every other, and to this the Hôpital St. Louis bears ample testimony. MM. Lugol and Emery are the only remains of the former days of St. Louis.

M. Lugol is, in every sense of the term, a great man. He styles himself "Le grand lustre du monde." It is curious to follow him in his scrofulous wards, and there hear him descant on the miraculous powers of iodine.

Near to the Hôpital des Veneriens is the Maison d'Accouchement, or Hospice de la Maternité. There is much difficulty in gaining admission here, as no medical man has a right within its wards, excepting those that are officially attached to it. There are between four and five hundred beds within it.

The Hospice de la Salpêtrière is an establishment on a very large scale. It contains between five and six thousand beds, entirely for women. Of these, a certain number are appropriated to old and infirm persons, others are set apart for patients labouring under incurable diseases. Here it was that M. Cruveilhier compiled his admirable work on pathological anatomy, the dead-house affording no small supply of diseases, in their most hideous forms. A certain portion of this establishment is allotted to those who are of unsound mind, their number varying from a thousand to twelve hundred.

The Bicêtre is for men what the Salpêtrière is for women.

Parisian Dissecting-Rooms versus the English.—True it is that subjects for dissection are far more numerous than those in England. In this point there is certainly a superiority. When, however, the accommodations that are provided in the Parisian dissecting-rooms are taken into consideration, the preference will be given to those of our own country. Let the student who has been accustomed to the dissecting-rooms in England enter those in Paris: the stench which first assails his nasal organs is almost insupportable, from the system of smoking which is carried on within them. Again, there is nothing like decency or order kept up; portions of viscera, detached limbs, pieces of dissected muscle, fat, and cellular membrane, are seen to cover the floor. It is necessary to be careful how we tread, lest we should stumble against some limb lying in our way, or slip up, from stepping on

some viscid substance that may be strewed upon the ground.

There are two great dissecting schools in Paris. One is close to the Ecole de Médecine, and adjoins Dupuytren's Museum of Morbid Anatomy; the other is situated near the hospital of La Pitié, and is called Clamart. This is one of a more modern date than the former, to which it is thought preferable. It is certainly situated in a more airy neighbourhood, and its accommodations are somewhat of a better order. It is necessary for all those who intend to dissect, to become pupils of the Internes, who have the choice of all subjects brought for dissection. Each interne has four pupils, who are attached to one subject, that is usually changed every ten days or a fortnight. The sum for the season, which lasts about five months, is about one hundred and fifty francs, or six pounds. To those who would be free from the inconveniences of the common dissecting rooms, a means is offered of dissecting in private, by becoming the pupils of the overseer of the school, who has private rooms set apart for this purpose. He of course demands a sum of money in proportion to the convenience offered, and this more especially of the English, who are always supposed to have a superabundance of money, wherewith they can afford to pay handsomely.

Case of Secretion of Air from the Human Skin.3 By Sir Francis Smith.—(The Dublin Journal of Medical Science, January, 1841.)—An hypochondriac gentleman, thirty-five years of age, informed Sir F. Smith that he was liable to immense disengagements of gas from the stomach; that he also occasionally discharged air from the urinary bladder; and had observed an escape of air from the surface of his body when under water in the bath. Little attention was paid to the last of these statements till the 15th of May, 1840, when Sir F. Smith was hastily summoned to the bath to see the phenomenon of the disengagement of air from the skin of his patient. He was found in a bath at 79°, and his chest, abdomen, shoulders, and hands, were literally covered with small air bubbles. When he removed his hands from the bath, the bubbles disappeared; but when he replaced them below the water, the air bubbles were observed to make their reappearance, at first very minute, but gradually increased in size till the palms of his hands became again coated with them. He frequently wiped away the bubbles from his hands and chest, but in every case they were soon replaced by others. The bubbles of air ran together, when pushed with the finger, like globules of mercury, without quitting the skin, or becoming loose in the water. This circumstance was observed for twenty minutes by Sir F. Smith; and towards the end of that time, the margins of the upper end of the bath, opposite where the shoulders had been, were coated all round, for the depth of about two inches, with minute bubbles of air.

¹ Edinburgh Medical and Surgical Journal, July, 1841, p. 289.

On the non-occurrence of Albuminous Urine during the Dropsy which follows Scarlatina. By Dr. Philipp, of Berlin .- (Casper's Wochenschrift fur die Gesammte Heilkunde, Nov. 1840.)-The results of Dr. Philipp regarding the occurrence of albuminous urine during the dropsical symptoms which follow scarlatina, are at variance with what have been observed in this country. In an epidemic scarlatina which raged at Berlin, he ascertained in sixty cases that the urine was not albuminous, though the dropsical symptoms were fully developed, and could only be traced to this complaint. The dropsical symptoms appeared at shorter or longer intervals; often four or five weeks after desquamation. The urine was tested both by means of heat and of nitric acid, but by neither of these was the slightest trace of albumen discovered. He is inclined to attribute this to the rarity of disease of the kidney at Berlin, seeing that for the last two years only two cases of Bright's disease of the kidney have been noticed. The scarlet fever, too, appears to vary somewhat in its type from that which occurs in this country, as he mentions that the deaths from this affection generally result from its complication with croup, as he calls it, or cerebral disorder. Dr. Philipp mentions that the dropsical symptoms are so mild and unattended with danger, that, though they occur in most cases, he has not met with one which proved fatal.

On the prevention of Pitting in Small-pox by means of Sulphate Ointment.² By Dr. V. Midaveine.—(Annales de la Societé de Medecine de Gand, December, 1840.)—The danger of applying mercurial preparations to the whole surface of the body, induced Dr. Midaveine to seek some other means which would be more generally applicable, and yet possess an equally modifying power over the variolous pustule. From the success he obtained in sixteen cases of small-pox, he thinks he has found in sulphur ointment a remedy equally efficacious in preventing the maturation of the pustule, and the subsequent pitting, as the mercurial preparations, whilst its application is not attended with the same danger to the patient. He employed it of the strength of one and a half to two drams of flowers of sulphur to each ounce of lard, the smaller proportion being used for the varioloid affection, the larger for the confluent small-pox. The whole body is rubbed with this three times daily; and the sooner the application is made after the appearance of the eruption, the greater is the chance of its speedily arresting its development. The pustules shrivel and dry up under this treatment, the appetite speedily returns, and convalescence is soon established.

Facts relative to the Statistics of Menstruation.³ By Dr. Adelmann, of Fulda.—(Neue Zeitschrift fur Geburtskunde, August, 1840.)—During the years 1834, 35, and 36, Dr. Adelmann ascertained the period at which menstruation had commenced in five hundred and seven individuals. From this it appeared that in girls with black hair, the average age at which menstruation commenced was 16; in girls with brown hair, the average age was 17; and in girls with fair hair, between 16 and 17. The average duration of each menstrual period, four to five days for the black-haired girls, and three to four days for the brown and fair-haired. Only one in one hundred and two cases was met with who menstruated regularly at the interval of three weeks; all the rest did so at regular periods of four weeks.

^{&#}x27; Edinburgh Medical and Surgical Journal, July, 1841, p. 290.

² Ibid, p. 292. ³ Ibid, p. 298.

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No. 3.

ART. I.—NOTES ON THE TREATMENT OF CHRONIC PLEU-RISY, WITH EFFUSION.¹

BY THE LATE JAMES HOPE, M. D.

The following paper must possess a high interest for our readers, when we inform them that it was commenced by Dr. Hope during his last illness, and concluded on his death bed. Unable to complete it as he could have wished, he was compelled to dictate it in the shape of notes, which he finished only four days before his decease. To those who knew Dr. Hope well, this zeal for science and his fellow-creatures will occasion no surprise. It was consistent with the character of the man, who died as he had lived,

an accomplished physician and a good man.

The symptoms of chronic pleurisy, with effusion more or less filling one side of the chest, are perfectly well described by systematic authors, as Dr. Law, (Cyclop. Pract. Med. p. 395 a.) yet there is no class of affections more habitually overlooked by the bulk of the profession than this—certainly one of the most destructive to life if neglected beyond a certain period. I am glad to notice that Dr. Stokes makes a similar remark. Some fault attaches indeed to the systematic writers alluded to, for their mistaking the state of anæmia, with its quick pulse, for irritative fever, by which they not only mislead themselves, but also their readers, as to the nature of the patient's condition, and, consequently, as to the appropriate means of cure. It has resulted from this, that a far too unfavourable impression of the curability of chronic pleurisy with effusion, or empyæma, as it is called after a certain time, has become prevalent. Dr. Law thinks more favourably of the possibility of cure. He with justice, however, excepts tubercular cases, and those in which the patient is not assisted; yet I think that he is mistaken in supposing that a copious evacuation from some other organ may not occasionally prove critical, and empty a chest. A case occurred to me in which absorption did not commence so soon as I expected; namely, within a week, when the patient was attacked with hypercatharsis to the amount of sixty watery evacuations in two days. The chest, meanwhile, which was dull within two inches of the left clavicle, and had the heart protruded to the right side of the sternum, had completely emptied itself, and the patient recovered.

Broussais met with only one favourable case out of eighteen. Laennec's view was equally gloomy, and Dr. Townsend's is no less so; Dr. Thomas

¹ Medico-Chirurgical Review, July, 1841, p. 295.

Davies feels the same so strongly, that he hurries on the operation of paracentesis at a very early period of the disease—a circumstance which is the main cause of the unusual success of the operation in his hands. From this aggregate of unfavourable opinions it results that, at the present time, there is a prevalent doubt whether the fluid of empyæma is ever absorbed. This fluid, it may be remarked in passing, may be either sero-fibrinous and albuminous, or contain pus in any degree up to its pure condition. This seems to be now a settled question, and I think it ought to be so, as the fluid, in healthy subjects, kills not by its quality, but by suffocating.

healthy subjects, kills not by its quality, but by suffocating.

I cannot feel surprised at this want of success in the cure of empyæma, when I notice the unsettled, vacillating, inadequate treatment recommended even by those writers who think most favourably of the possibility of a cure.

Dr. Law's treatment comes nearest to that which I have found effectual, but he is too timid in continuing the gentle use of mercury, from fear of its inducing irritative fever and hectic. This supposed irritative fever, however, is, in most cases, nothing more than excitement of anæmia, (a fact of which he does not seem to be at all aware, as even in the convalescent period he does not even name iron as a remedy,) and the hectic is a necessary consequence when the fluid is pus, and this is diffused through the whole circulation by the process of absorption. I have steadily continued the gentle external use of mercury through the most violent hectic, coming on twice a day in tremendous paroxysms; while I have counteracted this by the free use of mineral acids; and by a diet, not only of strong broth at luncheon, but of animal food at dinner—the patient's tongue being clean,

and his appetite and digestion always good.

Dr. Townsend seems principally to follow Broussais (phlegmasie chronique) and Laennec, neither of whom make use of mercury, and the former would only venture on a blister as an experiment! He likewise falls into their great error of mistaking anæmia for fever, and therefore starves the patient at a moment when there is a great demand for animal nutriment in any way in which it can be borne. The treatment of Dr. Thomas Davies is that of calomel and opium, and counter-irritants in the first stage, but he thinks these inefficient in the stage of chronic effusion. He therefore, as already stated, hurries on the operation of empyæma. The writer on pleurisy in the Library of Practical Medicine (Vol. III. p. 124) seems to have but an indifferent opinion of the curability of chronic pleurisy with effusion. After the third week or so, he thinks mercury of little benefit, and that it is even injurious when the hectic stage comes on; but approves of counter-irritants, and follows Dr. Stokes in his approbation of the use of the hydriodate of potass, to act both as an alterative and a diuretic; also of the iodide of iron.

Dr. Stokes, whose writings on pleurisy I had not the pleasure of seeing till long after I commenced my own observations, I find to be far the most successful in his treatment of chronic pleurisy and empyæma. In an excellent chapter, containing a considerable portion of original matter—some, perhaps, a little fanciful—he mentions that he cured twenty cases running by the use of a pint daily of cold solution of Lugol's iodine, and from a quarter to half an ounce of the ointment rubbed into the side. He is like-

wise very favourable to the use of blisters.

I have myself been instrumental in curing five and thirty cases consecutively, during the space of four years, but principally two years and a half, while I was assistant-physician to St. George's Hospital, no cases having been withdrawn, or added from an anterior date, except three; the 1st was Mr. Garnett, whom I saw about 1833, who had also fatal ulceration of the bowels; the 2d, the Rev. Mr. ——, whom I saw about 1833; the 3d an outpatient of St. George's, whom I found to have tubercular disorganisation of the lungs, and whom I, therefore, transferred to Dr. M'Leod, as an in-patient of St. George's. Paracentesis was practised; the tubercles were found; and he died from inexpansion of the lung, which was bound down to the spine.

The remainder of the cases all dated within three months, as well as I could make out by most carefully catechising the patient respecting the first feeling of pleuritic pain, or ailment of any kind. The pain was frequently forgotten, until the patient was perhaps asked whether he had not had a little lumbago, pain in the back, &c. Nor is this surprising; for copious effusion very soon relieves pleuritic pain. A very great proportion dated within two months, and from that time down to three weeks or a month. I seldom saw them earlier than a month, as they were either neglected and misunderstood cases amongst the out-patients of St. George's, or private patients whom I was called to see in consultation at a late period of the disease; the complaint of the latter having, with few exceptions, been also overlooked.

The following is a list of the previous duration of the disease in all my private cases, amounting to seventeen; but I lament to say that I cannot at present give the dates of those, eighteen in number, who were out-patients of St. George's, and the notes of whose cases I drafted out of 15,000 notes of cases, which I saw at St. George's (for I took notes of almost all). The notes of these eighteen cases having been separated from the others, I have unfortunately mislaid them. Unless, therefore, I recover them, I must trust to the confidence of the public for the accuracy of the facts. They were all demonstrated, as they occurred, to the students of St. George's.

Coachman of Sir Clifford Constable's, ill a fortnight, but previous bron-

chitis.

Miss Caldow, ill from two to three weeks.

Robert Watts, ill eighteen days. Mr. Smith, ill three weeks.

Mr. Tapson, ill a month,

Patrick Millerick, ill a month. Mr. Eade, ill five weeks.

Mr. Garnett, ill six weeks.

Henry Wade, ill two months.

Mr. Downing, ill two months.

Aldersgate street student, under Mr. ---, for supposed phthisis-had supposed lumbago nine weeks before.

Miss Miller, disease of ten weeks' standing for two months.

The Rev. Mr. Barter, two months and a half, but previous pneumonia.

Mr. Hamilton, ill three months. Eliza Gray, ill three months.

Mr. Morgan, stitch in back three months before. Ill ever since.

The Rev. Mr. ——? ill upwards of three months.

As I have not leisure to continue this paper at present, I subjoin the fol-

lowing memoranda of how I shall proceed, if time permit. The private cases being in great detail, and in general features greatly resembling each other, it would be useless to give the whole in full. Therefore pick out a few which give at length, as general types—for instance, Miss Miller, Mr. Morgan, and Sir Clifford Constable's coachman the remainder insert in an abbreviated form, together with such of the outpatients of St. George's as I can recall to memory, though I have lost the notes of their cases.—Show that I used mercury in all degrees of intensity, so as to ascertain what quantity was the most effectual, but, at the same time, least injurious.—Show that I always used opium, in full proportion, with the mercury, and that I used the milder and the external forms when the others could not be borne—thus taking especial care to protect the mucous membranes.—Add that I found prompt and free salivation by calomel and opium, and the use of one or two drams of ointment on each groin and axilla night and morning for forty-eight hours, (in conjunction with the other remedies presently to be specified,) produce the most rapid and satis-

¹ It will be observed that, from this point, the form of private notes is adopted.

factory effects of absorption, in cases where the dyspnæa and faintness seemed to me most urgent and dangerous. It was quite common, and, in fact, occurred in the majority of cases, that the fluid descended one third, and still oftener one half, down the chest, within the space of forty-eight to sixty hours, carrying with it the extreme dyspnæa and faintness, to the great

relief of the patient.

Say that blisters were used from the first, and that the following became my settled plan of managing them. One blister six inches long and three and a half broad, exclusive of margin, was placed longitudinally over, and a little to the outside of the angles of the ribs, leaving space for another of similar size between the first and the spine. Great care was taken not to remove the cuticle, (one means of which was to cover the surface of the blister with silver paper,) as this forms by far the quickest healing plaster; but after about forty-eight hours, during which the running was absorbed by dry napkins, carefully prevented from adhering, it became requisite to cover the whole with the mildest soap-plaster, spread on soft calico, to prevent the cuticle from being accidentally abraded. In this way all irritation promptly subsided, that is, in the course of from two to three days, and the patient was ready for the second blister, which was placed between the first and the spine. It was similarly treated; and, at an equal interval, a third was placed in front of the original one; that is, rather forward in the axilla. When pain indicated the possibility of a pleuritic stitch in any part of the side, it is needless to say that the first blister was placed over that.—Say that diuretics are conjoined: viz. squill; sp. æth. nit.; juniper; iodide of potassium, and, when there is no irritation of the mucous membrane, the various other preparations of potass. Digitalis, by creating faintness, is apt to confuse the symptoms; I do not, therefore, use it till later. When all these remedies had failed for two or three days, and dyspnæa continued as urgent as ever, I have occasionally used a powerful hydragogue, as half a grain to a grain of elaterium, combined with calomel and capsicum to prevent nausea; or the pulv. jalap comp. 3j.; so as to produce ten or twelve copious watery evacuations per day, stimulants being at hand in case of any sinking tendency. The effect of this has on several occasions been perfectly satisfactory, absorption in the chest having now made rapid progress. I derived this idea from a case already alluded to, in which a patient had an accidental hypercatharsis to the amount of sixty stools in two days, which emptied the chest in the same space of time. The patient is better in bed, both because it favours gentle transpiration, and obviates faintness.

Remind that, hitherto, I have been treating a case in which the dyspnæa seemed eminently dangerous, and the most vigorous use of remedies consequently indispensable; but now explain that inconvenience sometimes resulted from hypersalivation; for, notwithstanding an immediate suspension of the mercury either on the first appearance of tenderness of the gums, or of amelioration of the symptoms—especially the dyspnæa and obvious commencement of absorption—untoward salivation would occasionally occur, and greatly retard the convalescence. Explain that, on several times observing this, and having reason to believe that the patient could bear the dyspnœa with safety for some hours longer, provided he were prevented from rising, which creates faintness, (case of Mr. Smith, barrister,) I used more moderate quantities of mercury, being content to affect the gums within three or four days. In this way, the action of the remedy was easily controlled, either by omitting the mercury for two or three days, if its action threatened to be considerable, or by merely diminishing it according to the evidence of the mouth and of the symptoms. I found, however, that it did not answer to suspend it altogether, but that a continuation of it daily in a mild form, as a blue pill night and morning, or at night only, for the purpose of maintaining the first impression for a period of two or three weeks, or, in short, until all the disagreeable symptoms had disappeared—was attended with far better success. Explain, further, that the great acceleration of pulse, which

rises commonly to 120 or 130, and in young persons even to 150 or 160, and which is attended with what the patient calls "internal fever," thirst, craving for cold drinks, and dryness and heat of skin, is not necessarily a result of fever, but it is necessarily a result of anæmia, occasioned by the deficiency of oxygenation from the total incapacity of one lung at least. Here was the error made by Broussais, who supposed this to be fever, and put his patient on the lowest diet. On the contrary, acting on the opposite principle, I always supply my patients with at least one or two pints of concentrated beef tea, or plain ox-tail soup; and if the state of the tongue and the alimentary canal fully authorises it, I permit them tender old mutton or beef for dinner. On this treatment, the pulse and "internal fever" rapidly fall in

proportion as the anæmia disappears.

Next proceed to those cases in which hectic is established, resulting for the most part, I should imagine, from the fluids being of a puriform character-for after a month or six weeks, and sometimes much earlier, if the inflammation have been very intense, it assumes this character. Allude to the opinion pretty prevalent that mercury is injurious in such cases, and say that I have not found it so, but that its use was still indispensable: for I have noticed that where it has been omitted, contrary to my wishes and instructions, a recurrence of the effusion has taken place, notwithstanding the use of mineral acids and the various other remedies usually considered available against hectic; whereas, on resuming mercury with opium, and giving the mineral acids for hectic, I have been enabled to restore matters to their former condition, though not without an extra shake to the patient. One of the best instances of this was presented by Sir Clifford Constable's coachman. Dwell on this case; say that, after acute pleurisy of three weeks I saw him, and the chest was emptied in a week, but the mercury ordered to be continued. This, on my taking my leave, was omitted; and as he seemed weak, (viz. merely from anæmia,) he was ordered ammonia, brandy, and other stimulants. In ten days, when I was again called in, his chest had refilled, and he now had a most violent hectic paroxysm at eleven o'clock, A. M., and again at 11 P. M. Each of these thoroughly drenched him, and during the extreme heat the pulse would rise to 150, being also barely perceptible. In this, I saw nothing but a large quantity of pus in the circulation, which nature was endeavouring to throw off in her usual manner. I believed, in short, that the fluid in the chest was wholly purulent. I therefore continued the mercury and blisters in moderation, and made free use of the mineral acids, which, fortunately, he bore perfectly well. During the brief intervals of the hectic paroxysms, he exhibited that marked relief which we habitually see, and had always a keen appetite for his meals. He accordingly took as much mutton-chop, beef-steak, or roast or boiled mutton, as he was inclined to take. Under this treatment, the chest was again emptied within the space of ten days; the hectic symptoms slowly gave way during a period of a month or six weeks, and I dismissed him convalescent to go to the country. I may add, however, that when the hectic was nearly gone, sulphate of iron was added to his sulphuric acid, in order to co-operate with the animal food in removing all remains of anæmia.

Dwell likewise on the case of Mr. Morgan, æt. about 20, who was not only highly hectic, but had also slight gastro-enteritis. I continued the gentle external use of mercury, allayed the irritation of the mucous membrane by mild antiphlogistic means, &c., but allowed him plain veal and chicken broth, then beef tea and mutton broth, in such quantities as I found he could bear. The gastro-enteritis having been thus pretty well subdued, he became tolerant of the mineral acids and sulphate of iron, well guarded with laudanum. His youth rendered the progress of absorption more rapid than in the preceding case, for the fluid all disappeared within ten days, with entire relief to his dyspnæa; and so great a restoration resulted from the new supply of oxygen and removal of anæmia, that a week afterwards

he came in a cab from the city to the West-end to call upon me.

Auscultators should be careful not to throw away their chances by neglecting to use the stethoscope. In one instance, an accomplished physician, having examined the top of the lung and found it dull, with the other usual signs of induration, without following up his examination down the whole side, took the case for phthisis, and ordered the patient to the southern coast. A common friend having mimicked to me the mode of breathing of the patient, I declared at once, (for his imitations were most graphic,) that such was not the dyspnæa of phthisis; and as I knew him not to be a phthisical subject, and to have been in robust health two months before, I entreated of our friend to go down to the patient in the country the same afternoon, and not to let him stir (for he was to start two days after) without a consultation of physicians. I declined going myself, as having suggested the measure. Answer was returned that if I would not go, he would see no one else, as he had originally intended to have consulted me. I saw him, and found what I was before sure of: namely, that the whole side was full of fluid, indicated by the usual symptoms, including anæmia and the physical signs. I flattered him that we should empty the chest within a week or ten days, and that he would be convalescent, deo volence, in a month. So it happened, though mercury could only be borne externally, and that with great reluctance on the part of the patient. His convalescence was somewhat protracted, in consequence of the irritable state of the mucous membranes rendering them incapable of bearing the animal diet, and ferruginous preparations suitable for the removal of the anæmia. He had flying pains principally below the region of the heart, but these ceased under the use of plasters, especially belladonna; and he has enjoyed perfect health for the past year.

In the great majority of cases, an attrition murmur, (always most perceptible along the line of the margin of the lungs from the heart, curling backwards to the bottom of the lower lobe; in other words, below the axilla,) was found to appear as the fluid disappeared by absorption. I have noticed that the longer this attrition murmur lasts, the better; as the adhesions are more apt to be of a loose and elongated character, which I infer from the patient's recovering complete resonance on percussion, and complete restoration of respiratory murmur sooner than in other cases where the attrition murmur lasts but a few days, in consequence, probably, of the adhesions becoming universal and close. Whenever the latter is the case, the patient may lay his account to being more or less delicate for a year and a half or so, because the lung requires fully this time slowly to stretch the adhesions, to reacquire her natural respiratory murmur; or, if this should never occur, for the patient to gain a compensation by hypertrophy of the opposite lung, which, meanwhile, has constantly been doing vicarious duty; namely, breathing in an exaggerated or puerile manner. These exquisite arrangements of Providence cannot be sufficiently admired. The more we look

into them, the more complete we find them.

The lung sometimes remains permanently condensed, from the thickness and utter inexpansibility of the side; and dilatation of the bronchi may result from this cause, of which I have met with and detected four or more instances. Condensation of this kind is less frequently attended with falling in of the side than in cases of pleurisy; for the opposite lung slowly becomes hypertrophous and fills up the vacant space, advancing, however, into the opposite side of the chest, and carrrying the heart with it in either direction. Thus, in Peter Parker, an out-patient of St. George's, the heart is protruded almost into the right axilla, and the aorta pulsates an inch to the right of the sternum. Lung condensed by adhesion, is rarely healthy. There is almost invariably a slow, wearing, chronic bronchitis, which harasses and reduces the patient, and generally curtails his existence. Parker had had his cough for ten years, and he was an emaciated and decrepid subject.

Here introduce a number of detached observations, more or less original,

on various subjects. Thus, for eight or ten years, I have been in the habit of asking the question of all respectable patients of robust constitutions, who had been attacked with pleurisy, peripneumony, acute rheumatism, whether they were in the habit of wearing flannel, or not; to which they generally answered in the negative—the common reason assigned being, that they were so much exposed, that they could not venture to pamper themselves. I recently put the same question to a London physician, and he gave the same answer with a smile, and "my dear friend, it is impossible," &c. He was attacked with rigors the same night, and had a severe rheumatic fever. I do not quote the poorer classes, for they, almost universally, are deterred from wearing flannel by the expense, and it is notorious that they are subject to acute inflammations of all kinds, in a much greater proportion than the higher classes. Flannel is also highly beneficial to chronic affections of the mucous membrane of the lungs.

Pleurisy is, after rheumatic fever, one of the most frequent causes of pericarditis—not endocarditis, at first—the inflammation being propagated to the pericardium by contiguity of tissue: if endocarditis supervene, it is by pro-

pagation from the peri to the endo-cardium.

Diaphragmatic pleurisy may occasion agonising pain by interfering with the action of so great a muscle as the diaphragm. It is in such cases that we occasionally see the patient put on what is called the sardonic grin—a species of sympathetic spasm dependent on the excito-motory system and nerves.

In some convenient part of the paper, give a brief and compact, but very clear synopsis of the signs of a chest full of fluid. For I repeat that, well as these are known to systematic writers, they are singularly forgotten and overlooked by practitioners. They ought, therefore, to be pushed prominently forward on every occasion. Refer likewise to a synopsis of the signs of anæmia in the essay on that subject; by which the practitioner will readily distinguish this condition from that of fever, for which it has

been mistaken by Broussais and others.

Wind up by a general statement, that, if Dr. Stokes has cured twenty cases running by Mons. Lugol's solution and ointment of iodine, together with blisters and other means; and I have cured thirty-three consecutive cases by other means; fifty-three cases cured successively, without selection, afford a strong presumption that all really curable cases are curable without paracentesis. It remains to be proved by experience whether iodine or mercury be the less injurious to the constitution. I have myself the most favourable opinion of the harmlessness of the iodide of potassium when protected by starch—that is, a little bread with each dose; for I made the experiment of giving eight-grain doses against three-grain doses, in two hundred cases, for the purpose of ascertaining which dose was the most efficacious. The larger, both being given thrice a day, succeeded incomparably the better,

and I now rarely give the smaller.

I have met with seven or eight cases of circumscribed pleurisy, and whenever a chronic pleurisy becomes very protracted, I am not sorry to see a purulo-sanguineous discharge take place periodically, as it generally does, into the bronchial tubes; for in this case a slow process of healing generally occurs, and the patient, in a fair proportion of cases, recovers. I have recently discharged one, Henry Wade, who appeared to me to have had a chronic pleurisy engrafted on a previous circumscribed or sacculated one. The history of the chronic one is developed in my journal in the utmost detail; but the patient also informed me that some months before he had been under the care of a physician in Norfolk, who had treated him for six months previously for a discharge of half a pint of pur, mixed with blood, expectorated once a day from the bronchial passages. After this time, he sent him to London to consult me, and I found him with a very circumscribed empyæma that he might have had, obscured by general empyæma. This having been removed, the original circumscribed empyæma pointed at

the chest, and discharged by two or three apertures. When the discharge was free by the apertures, it was correspondingly diminished by the bronchial tubes. Both slowly decreased. The circumscribed empyæma seemed to descend very low in the splenic region, and after nine months of hospital attendance as an in-patient, he was dismissed without discharge, with slight cough and in general good health, his weight being at least twelve stone, though a moderate-sized man.

I discharged a patient from the Mary-le-bone Infirmary, cured six times of circumscribed empyæma above the left mamma, and opening into the

bronchi. At the end of six months he was completely well.

In another, in the Mary-le-bone Infirmary, the whole length of a probe could be passed directly into the chest. He recovered, but with much col-

lapse of one side.

A third, in the Mary-le-bone Infirmary, a boy of eighteen, had effusion for six months. My colleagues, in consultation, had given their opinion that he was tubercular. The operation of paracentesis, therefore, was negatived. The opposite lung was soon after attacked with peripneumony, and he died, when the exemption from tubercles was proved. I did not then understand an efficient treatment for fluid in the chest; and was therefore an advocate for the early operation on the principle of the late Dr. Thomas Davies, of Broad street. I had much regret, therefore, respecting this case, that the operation had not been performed. One feature was remarkable. Andral, Broussais, and others, recommend that patients in chronic pleuritis should be kept on light diet. This youth ate twelve ounces of dressed meat at dinner; eight ounces at breakfast, with two eggs; tea and milk ad libitum; sixteen ounces of bread daily.

Numerous similar cases show that nature's mode of performing the opera-

tion is incomparably more safe than paracentesis.

ART. II.—ON THE PATHOLOGY, PHYSICAL SIGNS, AND TREATMENT OF VALVULAR DISEASES OF THE HEART, IN CONNECTION WITH THE SOUNDS OF THIS ORGAN.

BY T. H. MOORE, M. R. C. S.

Late Secretary to the Dublin Medico-Chirurgical Society.

The following case, which has lately come within the range of my observation, I have been induced to give, not merely from the intrinsic value it possesses as being linked with the others, by the symptoms, physical signs, and morbid appearances, but also on account of other particulars, which can-

not fail to sanction its introduction here.

A woman, advanced in years, the mother of four children, was brought into the hospital, on the morning of the 16th of May, with both legs, feet, and thighs immensely swollen, presenting a florid red, glossy, erysipelatous hue, nearly as high up as the knees; pitting on pressure; of such weight that it was with pain and much difficulty they could be moved. There was an expression of great distress and anxiety in her countenance; lividity of the lips and cheeks; a tinge of bile on the conjunctiva; turgescence of the jugular veins, with distinct undulatory or pulsatory motions, very remarkable for the regularity of their succession in those of the right side of the neck. No degree of uniformity between them, the cardiac impulses, and the arterial pulsations, could be ascertained with precision, or in a satisfactory manner; their persistence, whether in erect or recumbent posture, was noted;

¹ London Medical Gazette, June, 1841, p. 542.

with a diminution in their strength, and almost total disappearance on the left side, in the former position. Her breathing is laboured to an extreme degree, accompanied with extraordinary action of the thoracic muscles; rattling in the trachea and thorax, sensible to the ear and touch. She sits propped up in bed, and obtains but short interrupted intervals of sleep; has lost her appetite; passes but a small quantity of urine, and is irregular in her bowels.

Physical Signs of Chest and Heart.—Percussion over and beyond the limits of cardiac region elicits a very dull sound, extending beyond the sternum to the right side; the heart's impulses can be felt in the cardiac region, not violent nor forcible; on the contrary, weak, but tolerably extensive, the shock being communicated to the touch over a less circumscribed space than that observed in health. A strong vibratory thrill is imparted to the palm of the hand, proceeding from the vibration of air and mucus in the bronchial tubes, intermixed with that resulting from the blood's passage through the cavities of the heart. During the act of suspending the respiration, the sounds of this organ, previously inaudible, and altogether obscured by the respiratory phenomena, became so far distinct, that their action was reported to be extensively heard. Beneath the mammæ, and within the precincts of the præcordial region, the first and second sounds, the entire of the heart's rhythm, are so much confused, masked, or replaced by a constant loud whizzing or rasping murmur, that it is impossible to distinguish between them individually, or recognise them collectively: with each impulse and ventricular contraction it commences, and progresses with briskness, roughness, harshness; and at the moment it should cease with the diastole of the heart, and the second sound succeed, a repetition of these physical signs takes place: a retroceding, regurgitating, whizzing murmur, less vigorous, less forcible in its intensity, and possessing less of those characteristic features of the former, becomes developed, and is communicated to the ear; at the termination of which the heart's impulse succeeds, the ventricular contraction follows, accompanied by the rushing or whizzing murmur, not unlike the sound produced by the rasping of the crust of bread, occupying the entire of the first sound, masking the second, and obliterating the interval which naturally intervenes. At the upper part of the sternum, and under the clavicles, the second sound is audible, though feeble; not so clear, having lost much of its energy, and not possessing that sharp, well-defined "claquement" so peculiar to it. Each arterial and valvular "clack" is preceded by a bellows murmur, regular in its succession, and constant in its intensity, but less distinct than that heard in the præcordial region; seemingly continuous with, or a prolongation of, these sounds, and gradually diminishing as we approach the fourchette of the sternum. Pulse 96, full and regular, counted in carotids; it cannot be felt at the wrist on account of the ædema; percussion over the posterior part of the right side is dull; the physical signs indicate, in addition to acute bronchitis, extensive congestion and ædema of the pulmonary tissue, with an accumulation of fluid in the left pleural cavity.

The abdomen is swollen, from the quantity of fluid in the peritoneal sac, a sense of fluctuation is afforded on percussion, and the true condition of the abdominal viscera rendered difficult to ascertain. The liver feels hard, enlarged, indurated; its sharp edge thickened and rounded. The intestines

are distended with flatus.

History.—For two years she has been subject to a chronic catarrh, and has for many months suffered from pains in the left side, palpitations, flutterings, and other symptoms of deranged circulation; the distress occasioned by the dyspnæa, violent palpitations excited by very trivial causes, agonising pains, and præcordial oppression, has been much increased within the last few months. The swellings appeared for the first time six weeks since, in the feet and legs, spreading upwards towards the thighs and abdomen,

finally extending over the upper extremities, and producing that state of misery in which she was brought into hospital.

Two days after this report was taken she died.

Autopsy.—The serous cavities of the abdomen and chest, left pleura in particular, contained light straw-coloured fluid; the quantity in the former

exceeding four or five quarts; that in the latter, a pint.

The heart, when exposed by laying open the pericardium, occupied the mesial line, and encroached considerably on the right pleural cavity, in consequence of its enormous dimensions from the increased capacity of the right ventricle and auricle; on its anterior surface is one of those white patches so frequently seen, occupying in its extent the circumference of half a crown. The veins are enormously turgid, those on posterior aspect, traversing from base to apex, particularly so. The heart is very flabby. exterior of the right ventricle, which is considerably augmented in its transverse and perpendicular diameter, presents a yellowish marbled colour, traversed by turgid bloodvessels; whilst the left, comparatively small, affords a specimen of two rare pathological alterations. As the heart lay in the pericardium, two circumscribed purplish or livid patches attracted our notice; one situated about an inch and a half, the other a few lines, from the apex. The superior one larger, in close proximity to the septum, does not exceed the size of a sixpence; whilst the smaller of the two might be covered by a fourpenny piece. The pericardium corresponding to each is more opaque and dense than that covering the rest of the ventricle. Two distinct indentations, similar to those which may be produced by punching in the muscular substance of the ventricle with the knuckle of the forefinger, were visible on the anterior part of the left ventricle; corresponding to which, and the dark-coloured patches, the muscular fibres of this cavity were so thin and attenuated, that the interior of the ventricle could be felt by the introduction of the finger into either of these depressions or indentations. On first inspection, it was supposed a perforation had occurred near the apex; such, however, was not the case. By examining from the interior of the ventricle, it was evident that, from the absorption and attenuation of the muscular fibres of the ventricles interposed between the endo and peri-cardium, two pouches had formed, which, when distended with blood, or protruded by means of the finger, constituted two circumscribed true aneurisms of the ventricle; in one of which was contained a dark-coloured fibrinous coagulum, being entangled between the fleshy columns encircling the sac, and distinct from other coagula in the ventricle.

The pericardium can be detached with the greatest facility, and removed from the surface of both ventricles, by exerting a slight degree of traction. The muscular substance of the ventricle, excepting the two places described; is hypertrophied, but of a pale colour, separable into distinct laminæ by making a transverse section, raising the fibres, and drawing them from apex to base; thus three, four, or even more plates, or layers of fleshy fibres, can be

removed, pale and flabby, but increased in thickness.

It seems probable that the cellular tissue separating the muscular fibres had become infiltrated with serum, participating in the ædematous condition of the cellular tissue diffused over the body; such a supposition becomes justified, from the colour of the right ventricle appearing to originate in a sub-pericardiac infiltration into the cellular tissue, scattered amongst and serving to connect the muscular fibres together—from the muscular fibres themselves being flabby and attenuated—the fleshy columns being thin and numerous—and from these not being sufficient to account for the tumefied appearance and obvious augmentation in the volume of this viscus.

The auricles, right and left, more especially the former, are increased in the capacity of their chambers to double or treble their usual size. Venæ cavæ dilated, gorged with blood; coats somewhat thickened; parietes of auricles hypertrophied; appendices enlarged, and musculi pectinati lengthened; the endo-cardium of the left is increased in density, opaque,

and easily detached from the muscular fibres.

The right auriculo-ventricular aperture is of enormous size, dilated to nearly double its general measurement. The tendinous ring is sufficiently distinct. The tricuspid valves are inadequate to effect the closure of the orifice, two thirds being thickened, in their perpendicular measurements, with fibrous prominences on their surfaces and borders. The left auriculo-ventricular aperture and mitral valves are similarly affected, but not to the same amount.

The pulmonary valves are healthy; those of the aorta of a deeper red in their colour, but retaining their transparency; a slight increase in their density was noticed. The calibre of the arch is dilated. Steatomatous depositions pervade the interior of the aorta, and may be seen in greatest number at some distance from the valves. Not far removed from one of these, there has been deposited a quantity of fibrin beneath the serous, between it and the muscular coat. Advancing from the ascending and transverse portions of the aorta, the coats were found more healthy.

The superior parts of the pharynx and larynx are of a deep red, approaching to a purple hue. The epiglottis less elastic than natural; its mucous membrane of a violet colour, thickened, and velvety feel. The rima glottidis appears narrowed in its antero-posterior diameter; no ulceration could be

detected.

Head.—From three to four ounces of limpid serum was effused between the arachnoid and dura mater, also between the arachnoid and pia mater; abundant at the base of the brain, at the superior part of the spinal column,

and in the vertebral theca.

In the floor of the third ventricle, anterior and inferior to the orifice of the iter a tertio ad quartum ventriculum, a second orifice, distinct, smooth, and circular, attracted my attention in this, as well as on two previous occasions, in brains not affected by disease. Into this orifice the point of an ordinary sized director can be introduced, which, taking the course of the canal, proceeds upwards and backwards, beneath the floor of the aqueduct of Silvius, and that of the fourth ventricle, on the superior surface of the pons varolii. Passing downwards and backwards between the processes a cerebello ad testes, still preserving the mesial line, it gradually contracts in size, and seems to terminate in a species of cul-de-sac, at a short distance above the posterior spinal fissure, with which it was at first supposed to be continuous; but more minute examination did not ratify this supposition, as the continuation of the canal could not be satisfactorily ascertained. On three separate occasions have I been foiled in tracing a direct communication between the two, and establishing an immediate connection of one with the other, but have succeeded in observing that a minute fissure leads from the apparent termination of the canal. This canal, when laid open in its entire extent, from the floor of the third ventricle, posterior to the infundibulum, to its termination behind, describes a curvilinear course, is circular in its calibre, and presents a smooth, polished, glistening internal surface, being lined throughout its entire extent by serous membrane; its parietes, varying from one to two lines in thickness, consist of a layer of cineritious and medullary substance, inclosed between two laminæ of serous membrane.

OBSERVATIONS.—It is unnecessary to remark, that we possess in this case more than an ordinary amount of instruction; but in commenting on some of the leading features during life, and the pathological changes observed in the autopsy, it will be more profitable to inquire in a cursory manner—

1st, Into the similarity existing between the symptoms, physical signs, and pathology of this case, and those noticed in others, as illustrative of the

disease under consideration.

2d, Into the probability of those physical signs having originated in, and being produced by, the aneurisms of the ventricle, and the liability of the one being mistaken for, and confounded with, the other, from such coincidence.

3d, Whether the attenuation of the parietes of the ventricle in those two circumscribed spaces, which was conducive to the formation of the aneurismal pouches, resulted from an inflammatory attack of the muscular structures, preceded, was coeval with, or consequent upon the morbid

changes, progressing in the valvular structures.

From the combination of two circumstances, permanent patency of the auriculo-ventricular apertures resulted—first, from a dilatation, an increase in the circumferences of the orifices; secondly, from retraction of the valvular tissues, and consequent deficiency in their length; diseases in themselves sufficient to account for the presence of the physical signs—the masking of the entire of the heart's rhythm, heard in the præcordial region, by a loud whizzing murmur or constant buzz. But herein we are enabled to detect a very striking dissimilarity between the auscultatory phenomena and those recorded in the preceding cases; inasmuch as, at no period of the examination, nor by resorting to those manœuvres and experiments, as far as her deplorable condition permitted, were we able to observe a remission or intermission in the vigour, the intensity, the regularity and asperity of those phenomena, so obvious and so constant in the others, as to be considered one of the characteristics of this disease, and deemed almost pathognomonic of its existence.

We have recorded, it is true, a marked difference between the harshness and loudness of the abnormal murmur accompanying the ventricular contraction, and that heard during its diastole. In the description given, it has been noted, that the sound communicated to the ear gave origin to the idea that "the retroceding, regurgitating whizzing murmur, less vigorous, less forcible in its intensity, and possessing less of the characteristic features of the former," (vide report of physical signs, &c. &c.) proceeded from a reflux

of blood through the auriculo-ventricular orifices.

That this description, though virtually correct, must be at variance with our physiological knowledge of the succession of phenomena composing the heart's rhythm, and if not commented on, must lead to confusion, requires not a second consideration; instead, therefore, of being led astray by the sounds communicated to the ear, and attributing this train of phenomena to the regurgitated current produced during the ventricular contraction, and in conjunction with the aneurismatic condition of the left ventricle, chiefly instrumental in causing the loud rasping murmur, we must in preference ascribe it to the succeeding column of blood, passing over an uneven, roughened surface, immediately after the subsidence of the muscular contraction; continuing during the diastole of the ventricles; occupying the heart's interval of repose; being propelled forward in part by the action of the auricles, but chiefly by its own unopposed gravity.

Let us now inquire whether these aneurisms were antecedent to, coeval with, consequent on, or subsequent to, the disease of the valves. The two first inquiries may be disposed of by our confessing that, through want of a sufficient number of cases and consequent experience, a perfect silence must be maintained; but in objecting to trace their origin to, and refusing to acquiesce in any opinion which may attribute these aneurisms to a disorganisation of the valves, it is but right to state that this opposition has been grounded on, and the inference drawn from, the extreme rarity of the coexistence of these affections, which, if viewed in the light of cause and effect, ought to retain a greater comparative frequency than has hitherto

been recorded.

In searching after the predisposing and determining causes of this disease, pathological examination and ocular demonstration direct our attention to the existence of acute inflammation of the serous and muscular structures of this viscus at some previous period; but in recalling to mind the different divisions of inflammation; the various changes effected by each, in different parts of the animal economy; the hardening and softening; the thickening and thinning; the increase and decrease of volume, in organs whose struc-

tures accurately correspond, we must revert to the effects of that slow, insidious, subacute inflammatory process on other parts of this organ, to be

enabled to offer a satisfactory explanation.

During the progress of this inflammatory action, we have had frequent opportunities of attesting that the muscular fibres become weakened and flabby; decreased in bulk and energy; yielding during this atrophying process to the force of the circulating current; and dilating the cavities, in thus yielding during each act of propelling the blood into the arterial system. From an excess of innervation; from a predominance of this enfeebled, thinned, attenuated condition of the fibres in two or more circumscribed spaces, and their consequent inability to offer further resistance to the circulating column of blood, they either give way, are absorbed, or form on various portions of the heart's surface those aneurismal sacs, into the interior of which, the blood entering as it passes through the cavity of the ventricle, a gradual distention of its walls takes place, until in the course of time it may have attained a size equaling the normal dimensions of the heart.

That these pouches did not originate in rupture, nor ulceration of the fibres, consequent on the formation of an abscess in the substance of the ventricle, may be inferred from the uninterrupted continuity of the fibres after the removing of the lining membrane of the aneurism, the endocardium ventricle, and there being none of the distinguishing marks of a former

abscess.

I can well conceive that if this aneurismal affection of the parietes of the ventricle had existed per se, and the auriculo-ventricular valves had remained sound, we should have had symptoms precisely the same, and physical signs differing but slightly from those described, as the attendant phenomena of permanent patency of the apertures, with morbid growths or excrescences on the surface of the valves.'

BIBLIOGRAPHICAL NOTICE.

Rigby's Midwifery.2

The advent of the volume before us was announced in a late number of this Journal. It was published in London as a part of Tweedie's "Library of Medicine," and is certainly equal to any of the volumes that have preceded it. It is written sensibly and clearly, and the author is aware of most that has been done in the important department of medical science embraced by it. We can, consequently, strongly recommend it to the practitioner and student. The general anatomy and physiology of utero-gestation and setal existence are ably treated—subjects sadly neglected in many of our obstetrical works. But sew of the diseases of the childbed state are touched upon—they are puerperal severs, phlegmatia dolens, and puerperal mania.

The work is divided into five parts:—Part I. Embracing the Anatomy and

We have taken the liberty of considerably shortening this paper: if the reader should perceive any want of perspicuity, he will, therefore, please to attribute it to us.

-Ep. GAZ.

² A System of Midwifery, with numerous wood-cuts. By Edward Rigby, M. D., Physician to the General Lying-in-Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, &c. &c. With notes and additional illustrations. 870. pp. 491. Philad. 1841.

Physiology of Utero-gestation; Part 2. Natural Pregnancy and its deviations; Part III. Eutocia or Natural Parturition; Part IV. Midwifery Operations; and Part V. Dystocia or Abnormal Parturition.

MISCELLANEOUS NOTICES.

Dr. Mandl on the Chemical Analysis of the Blood in a Pathological State. Dr. Mandl has contributed three very elaborate papers to the Archives de Medicine, for the latter months of last year, on this very diffi-

cult but very important and interesting subject.

The first is occupied with a review of the numerous, and from their discordance often bewildering, statements of different chemists and physiologists as to the composition and the relative qualities of the most obvious constituents of the blood-the fibrine, the globules, and the serum. There is still much contrariety of opinion on this subject, and we are far from having arrived at any recognised exactitude of knowledge. Perhaps the very attempts which have been made of late years, since chemistry has made so much progress, to obtain too minute analyses of the animal fluids, has retarded and impeded our progress in our physiological acquaintance with them, alike in a healthy and in a morbid condition. To be a useful animal chemist, the experimenter must be a practical physician at the same time; and we cannot expect to obtain any important results, unless the various changes, which are induced on the fluids by disease, are attentively examined and duly appreciated by the bedside of the patient, as well as afterwards in the laboratory. To select one out of many proofs that mere chemistry can do but little for humoral pathology, we may allude to the circumstance of the two principles, albumen and fibrine, being recognised to consist of the same chemical elements in nearly the same proportions, while at the same time every one knows how different are the phenomena which they exhibit in the chemistry of the living body. And if we wished to show the discrepancy of authors on the relative proportions of the different elements of the blood during health, we have only to mention that, according to Lecanu, there are about three parts of fibrine in one thousand parts; whereas Berzelius estimates the proportion at less than one part; Fourcroy, as varying from 1 to 4; Davy, as 1½; Nasse, as 2½; Müller, at nearly 5 (in the blood of the ox); and MM. Andral and Gavarret, at 3. Well, therefore, may Professor Giacomini assert in a recent paper, (v. Gazette des Hôpitaux, No. 20, 1840,) that "if we compare the numerous tables on the composition of the blood, published in works on chemistry, we do not find two that are not at variance."

If from the chemical analysis we proceed to the physiological interpretation of that most common phenomenon, the coagulation of the blood, we find as much discordancy of opinion as on the relative proportion of the fibrine. Some have attributed it altogether to the blood being at rest, and have therefore ascribed its fluidity to the circumstance of it being constantly in motion during life. But how then shall we explain the fact of the entire mass remaining perfectly fluid within the vessels in some cases of sudden death, and of the contents of a vein or artery in any intermediate portion of the tube between two ligatures, and thus kept in a state of complete repose, not becoming coagulated?

Others have sought for a reason of the phenomenon in the refrigeration of the blood when it is drawn from the body. But numerous experiments have

¹ Medico-Chirurgical Review, July, 1841, p. 178.

shown that this idea is quite untenable; seeing that the process actually goes on more quickly if the temperature of the blood is kept to the heat of the living body, and that, on the other hand, it is considerably retarded if the temperature is much reduced. Hewson has even proved that the blood after being frozen and again thawed will coagulate, as usual, into a solid and a fluid portion.

Then as to the influence of the atmosphere on the process of coagulation, various experiments have been at different times made to ascertain the effects of withdrawing its pressure, by introducing a vessel full of freshdrawn blood under the bell of an air-pump; but hitherto no satisfactory conclusions have been drawn from these experiments; different results having

been obtained by different men.

Then again, it has been supposed by some that the coagulation of the blood out of the body is somehow connected with, if not dependent upon, the disengagement of gaseous elements from its mass. Home and Scudamore have, for example, attached much importance to the escape of carbonic acid; but Dr. Davy has subsequently denied its influence altogether; and, indeed, might we not well ask, how does the blood not every moment coagulate in the lungs, seeing that there is a constant evolution of this very

gas during respiration?

Dr. Mandl sums up his observations on this subject in these words:—
"What then, up to the present moment, is the result of all the chemical experiments which have been made to explain the coagulation of the blood? None, absolutely none. How are we to account for the blood, contained in the jugular vein of a dog, rabbit, remaining liquid for some hours in a portion of the vessel which has been separated from the rest by means of two ligatures, and subsequently removed from the body of the animal? The coagulation is retarded under such circumstances by cold. But when the vein is opened, the blood coagulates in the course of two or three minutes. Now how are we to explain these phenomena? We must confess that we are utterly unable to do so. This experiment is quite conclusive against the idea that coagulation is owing to the blood being at rest, as well as against that which attributes it to the influence of refrigeration."

Dr. Mandl subsequently alludes to the influence of certain chemical substances, when mixed with fresh-drawn blood, in retarding the process of coagulation. These substances either precipitate the albumen and fibrine in the form of molecules, which do not afterwards coalesce, or they hold these elements in chemical solution. For example, by means of sulphuric acid we may obtain a solution of blood; but we have no right to say that, under such circumstances, we have prevented the coagulation of the fibrine.

With one short extract, which seems to us to suggest a useful distinction, we shall close our remarks on this subject. . . . "In studying the phenomena of the coagulation of the blood," says Dr. Mandl, "we ought to distinguish two moments or circumstances which are very different from each other:the first is the solidification or precipitation of the dissolved fibrine; and the second is the contraction of this fibrine newly solidified. This contraction of the fibrine may take place in three or four minutes, or it may require several hours, according to the refrigeration, the evaporation, the force of the jet, the greater or less quantity of the blood drawn, the external temperature, the humidity of the air, &c. &c. Now, authors have always confounded this second moment, the contraction, with the first moment, the precipitation; and yet these two phenomena are as distinct from each other, as the precipitation of a salt and its crystallisation. When Hunter wished to explain the process of coagulation by attributing it to the contraction which is observed to take place in the fibrine as in muscular tissue, he used to say—this must contract, because it does contract; he thought only of the second act or moment of the process." We proceed now to offer some

On the Formation of the Buffy Coat .- Without entering at all upon the

disputes of different chemists as to the nature of the buffy coat, we may merely state that, for all practical purposes, it may be admitted that it is part of the fibrine, held in solution in the blood, and deposited free from any admixture of red globules. The simple and beautiful experiment of Hewson proves this very distinctly: by removing with a spoon the upper colourless layer of the blood, he observed that the buffy coat is quickly formed in this decanted serum.

If we now inquire, what is the cause of this deposition of part of the pure fibrine of the blood on the surface of the clot, in certain forms of disease, a great number of most estimable authors will at once answer, "a greater than usually slowness in the act of coagulation." But another set of authors, whose names are entitled to as much credit, assert the very contrary, and distinctly maintain that this process actually goes on more quickly than usual, when the buffy coat is formed. For example, Andral and Forget, in their recent memoirs, state—"the separation of the blood into its solid and fluid portions takes place rapidly in plethora and in inflammatory diseases, as daily observation testifies."

We cannot, therefore, assent to the opinion that the formation of the buffy coat is owing to a retardation in the process of coagulation. Neither can we ascribe it, as some have done, to a mere excess in the quantity of the fibrine existent in the blood; for it has been amply shown by several writers, that not unfrequently the blood contains an unusual quantity of this

constituent, and yet no buffy coat is formed on its surface.

M. Magendie, in his recent work on the physical phenomena of life, endeavours to explain the difficulty by ascribing the buffy coat to "one of the most simple and best understood physical phenomena, the relative gravity of the globules and of the fibrine; the former having a greater specific gravity than the latter, tend to fall to the bottom of the mass, and thus the fibrine collects, more or less exempt from them, at the surface."

This explanation may be correct; but certainly the premises on which it is founded have not been proved. We do not, for example, know for a certainty that there is any alteration in the specific gravities of the fibrine and of the globules; and we should also remember that it is part only of the fibrine that collects at the surface, while another part sinks down, and en-

tangles in its meshes the globules.

M. Mandl proceeds to expound his own views on this question. The following extract will enable our readers to understand the scope of his

... "Every one is agreed in admitting that in the formation of the buffy coat, the red globules are precipitated before the fibrine is coagulated. Now on what does the formation of this buffy coat depend? we answer, on all those circumstances which tend to favour this precipitation of the globules before the congulation of the fibrine. Among these circumstances we may first mention the specific gravity of the serum. Whatever renders the serum lighter than usual, may give rise to the formation of the buffy coat, since the globules are then precipitated more quickly than usual. Again, the blood and the serum, when cooled, are more dense and heavy than when they are warmed; and, therefore, whatever tends to keep the blood either warm or to cause it to cool, will have the effect of on the one hand favouring, and on the other hand of retarding, the formation of the buffy coat. By attending to these circumstances, we can explain the results of numerous experiments which we find recorded in the writings of various authors, but which are otherwise not easily intelligible. The small interrupted stream from a small opening in a vein, the vessel into which the blood is received being shallow, cool, and held at a distance from the arm, a cool state of the atmosphere, &c. &c., are so many circumstances which are unfavourable to the franche formation of the buffy coat."
In illustration of his views, Dr. Mandl states that, from various experi-

ments, we have reason to believe that the specific gravity of the blood in

inflammatory diseases is, in spite of a greater quantity of fibrine contained in it than usual, somewhat lower than in health. He appeals to the writings of Thackrah, Scudamore, Babington, and Davy, in proof of this assertion. Nasse, also, of Bonn, in his recent work—Ueber das Blut, 1836—distinctly states that the buffy coat is stronger in proportion as the specific gravity of the blood is less, and that it forms with much greater difficulty on blood that is very dense.

If it be now asked, to what is this diminution of the gravity of the blood in inflammatory diseases owing, M. Denis (Etudes Chimiques sur le Sang) tells us that there is, under such circumstances, a deficiency of the usual quantity of the albumen, and of the saline matters dissolved in the serum. This statement has not, however, been confirmed by the subsequent re-

searches of MM. Andral and Gavarret, nor by those of M. Lecanu.

It is not improbable that the specific gravity of the globules themselves may vary a good deal under different circumstances; but as yet we have no

satisfactory data on this subject.

Of Blood deficient in Fibrine.—In not a few diseases is the blood found in what has been called a dissolved state, more than usually liquid, its coagulum being soft and imperfectly formed, and its watery portion more than usually abundant. Such is the case in almost all malignant fevers, in

scurvy, in purpura, &c. &c.

Let us consider the state of the blood in scurvy for a few minutes. It is admitted by all authors who have seen much of this disease, that there is not only a marked deficiency of its fibrine, but also a very considerable increase of the alkaline salts of the blood. Now what is the effect of these salts on the coagulation of healthy blood?—to retard, or even to prevent the process altogether. Dr. Mandl seems to think that we are not to infer, from this condition of the blood, that there is necessarily any considerable diminution in its normal proportion of fibrine, but only that this element is held in solution in such a manner that it is not easily precipitated from the other elements of the mass.

Our information is as yet very defective as to the existing proportions of the saline matters of the blood in those other diseases where the blood is known to be more than usually thin and diffluent. It is worthy of notice that the commixture of putrid animal matters with healthy blood has nearly the same effect upon it, as the addition of a quantity of an alkaline salt—viz. to impede the coagulation, and to cause the mass to remain more fluid and dissolved. Whether the blood becomes actually impregnated with any miasmatic particles in typhus and other malignant fevers, is not easily determined; but certainly there is nothing improbable in the supposition.

"We regret," says Dr. Mandl, "that we do not possess more complete analyses of the blood in typhoid fever. Is the fibrine actually diminished in quantity? and is the proportion of the saline ingredients, or of the albumen, which in our opinion produces analogous effects, at all increased? As yet we do not accurately know; but it may be readily understood, from what we have previously stated, that we must be on our guard in at once concluding that there must necessarily be a diminution of the actual quantity of the fibrine merely from the amount of it obtainable from the coagulum. M. Denis positively attributes the defect of coagulability and the other differences of the blood in typhoid fever to an augmentation of its saline ingredients."

Dr. Mandl next alludes to the alleged changes of the globules of the blood n disease.

"We shall now," says he, "inquire how far circumstances may influence the proportion or relative quantity of the globules in our examinations of the blood, and shall allude more particularly to that condition of the blood where the coagulum is found to be more than usually soft and unadherent, because it is precisely in such a case that experimenters have discovered an abnormal proportion of the globules.

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in union with them.

"To determine the proportion of the globules in any quantity of blood, we divide it into two parts; in one of which we ascertain the quantity of the fibrine by stirring it briskly with a bunch of rods, and then deduct the weight of the fibrine so obtained from the weight of the coagulum, in the other portion of blood previously dried. Now, the fibrine being often unusually soft, it will be found to be very difficult to separate it completely; and hence the proportion of the globules will often be estimated as considerably higher than is normal, in consequence of a portion of the fibrine remaining

"Again, we have previously seen that a firm and well-contracted coagulum contains a large proportion of globules, and that, as a certain quantity of them escape our analysis, the exact amount of this proportion is apt to be understated. On the contrary, in a coagulum which is soft and does not retain its globules so firmly, the proportion of these globules is apt to be estimated too highly. It results from our observations, that the more quickly that the fibrine coagulates, the less will be the quantity of it (the fibrine) that is found united or associated with the globules; and, on the contrary, the more slowly that the fibrine coagulates, the larger will be the quantity of it that is found with the globules: in other words, the relative proportion of the globules will be diminished in the first instance, and increased in the second. Now the presence of saline matters, which retard the coagulation of the blood, must produce on the one hand a soft coagulum, and on the other hand, an apparent increase in the proportion of the globules."

MM. Andral and Gavarret have, in their recent memoirs on the changes of the blood in various diseases, characterised the second class in their humoral nosology, as that in which the proportion of the fibrine of the blood is often diminished, while that of the globules is often increased. In this class they have arranged all the tribe of continued fevers upon what we consider to be very insufficient information. For other observers, as Dr. Reid Clanny and Dr. Jennings, have expressly stated that, according to their researches, there is a notable diminution in the proportion of the globules of the blood in these very diseases. The question, therefore, still remains undecided. Indeed much, very much, requires to be done before we can assure ourselves of having arrived at any exact conclusions on many of the apparently most simple questions connected with the physiological and pathological conditions of the blood."—Archives Generales de Medicine.

On the Treatment of Hæmoptysis with Tartrate of Antimony.\(^1\)—It might at first be presumed that the tartrate of antimony, in consequence of its vomitive action, should rather aggravate than arrest the spitting of blood from the lungs; but, from the observations of Stoll, it appears that this is really not the case. The following instance, among many others, related

by the illustrious physician of Vienna, is well worthy of notice.

"I remember," says he, "to have had under my care a young Turk who had been seized with bilious fever and with profuse hæmoptysis. I immediately ordered him a vomit. The attendants were frightened at the prescription, and most anxiously awaited the effects of the medicine; being afraid that the hemorrhage would be greatly increased by the effects of vomiting. But no sooner had the patient rejected a large quantity of bile from his stomach, than all traces of the hemorrhage ceased, and he recovered without any return of it."

After citing numerous similar cases, Stoll remarks:—"Vomentes ne guttam sanguinis rejecerunt, quasi ipsa emesis hiantia pulmonum vasa quovis auxilio citius atque efficacius stringeret; et, vomitu jam peracto, aut nihil

omnino sanguinis, aut ejus nonnisi paucum quid per intervalla et ad exiguum

tempus comparuit."

It should be stated that Stoll seems to have employed this mode of treatment only in cases of hæmoptysis accompanied with bilious symptoms, and seldom in those where there was any marked predisposition to pulmonary consumption.

Several writers subsequently have adopted the emetic treatment of hæmoptysis, and very different results seem to have been obtained in the hands of different physicians; for while some strongly approve of it, others as energetically condemn it. As a general remark, we may state that ipecacuanha has usually been preferred as an emetic in cases of pulmonary hemorrhage to any of the preparations of antimony; the former drug being supposed to

possess a peculiar astringent property on the vessels of the lungs.

M. Nonat, one of the physicians of the Hôtel Dieu at Paris, however, has of late been using the tartrate of antimony in numerous cases of the disease, and reports most favourably of its effects. He has used it not only when the stomach and liver were evidently at fault at the same time, but also in many instances where there was no disturbance of the digestive organs, and where, therefore, the only indication was to arrest the discharge of blood from the chest.

Case.—A man, thirty years of age, was admitted into the Hôtel Dieu on the third day of an attack of hæmoptysis, which had resisted bleeding from the arm, and the use of other remedial means; it was the first attack of the

disease which he had ever experienced.

The symptoms on his admission were well marked: frequent cough, with the expectoration of frothy sanguineous sputa; mucous and sub-crepitant rale over the summit of the right lung (percussion gave a dull sound at this spot); sense of heat in the chest, and dyspnæa; pulse frequent and rather strong. There were also symptoms of considerable gastric disturbance such as a coated tongue, bitter taste in the mouth, nausea, &c.

An emetic of tartrate of antimony was ordered; the stomach symptoms were quickly relieved, and the spitting of the blood entirely ceased.

The second case is very similar, and the third one was still more severe. A middle-aged woman was seized with a second attack of hæmoptysis, which had already continued for four days before M. Nonat saw her. previous attack had occurred two years before, and had lasted for nine days before the hemorrhage entirely ceased. An antimonial emetic was at once ordered her; it caused her to vomit three or four times freely; at the expiry of a few hours, the sputa ceased to exhibit any trace of blood; and from this time they were nearly colourless.

After mentioning another successful case, M. Nonat then adduces the history of other two cases, in which the emetic practice failed altogether in arresting the sanguineous expectoration. In one of these, the patient was evidently labouring under tubercular phthisis in an advanced stage; the first dose of the emetic seemed to produce little or no effect on the pulmonary hemorrhage; but on being repeated a few days subsequently, it was distinctly increased, and considerable difficulty was experienced in subduing it.

M. Nonat candidly admits that the exhibition of emetics in a case of hæmoptysis, where we have reason to suspect ulceration of the lungs, is scarcely warrantable, and he very judiciously adds, that the practice is best suited to those cases of the disease in which the hemorrhage is of an active nature, and is accompanied with the molimen hemorrhagicum.—Bulletin

de Therapeutique.

Remarks.—We have, for several years past, been in the habit of employing the tartrate of antimony in the treatment of hæmoptysis; but rather in small doses repeated at short intervals, than in full doses as an emetic. For example, a grain and a half, or two grains of the salt, may be dissolved in eight ounces of water, and half an ounce of syrup of poppies added to the solution; of this mixture, two table-spoonsful should be given every two or

three hours. We can confidently recommend this practice, both for its safety and its efficacy.—Rev.

M. Trousseau on Tracheotomy in Chronic Diseases of the Larynx.\(^1\)—Professor Trousseau has now performed this operation in 113 cases—in eight only of which was it resorted to for chronic disease of the larynx. He ascribes the frequent failure of the operation to the too small size of the canulæ employed before the time of M. Bretonneau, his revered preceptor. He himself has recommended and introduced the use of a dilator, which much simplifies the operation, renders the ligature of the divided bloodvessels almost unnecessary, and greatly facilitates the introduction of the canula into the larynx.

But although the operation may be simplified, it must always be regarded as of serious moment, and should never be resorted to without absolute necessity. For even when the death of the patient cannot be attributed to the operation, there is in many cases after its performance a marked tendency to the supervention of some acute disease of the lungs, which generally

proves fatal.

Of the eight cases, in which M. Trousseau performed tracheotomy in consequence of chronic diseases of the larynx, two died from rapid pneumonia. He attributes this tendency to pulmonic inflammation, which is apt to follow the performance of the operation, to the stasis or congestion of the blood induced by the embarrassment of the respiration. It would seem, however, from his own statements, that this predisposition to a rapidly fatal pneumonia is not greatest in those cases where the dyspnæa has been most severe before the operation, and moreover, that in such cases the relief obtained is often as decided and as permanent as in other instances, where the difficulty of breathing has not been so great. He has reported several cases in which he has performed the operation successfully on children when the asphyxia was already complete, and life seemed to be utterly extinct; and to these may be added a very extraordinary instance which occurred in the practice of M. Bretonneau. This distinguished practitioner being called to operate on a child, had the misfortune of seeing it expire, to all appearance, before the preliminary incisions were completed. M. Bretonneau, however, without delay, opened the larynx, introduced a canula, and practised artificial respiration. At the end of a few minutes, the child began to breathe, and at length became completely resuscitated. A few days subsequently it was again seized with great difficulty of breathing; this, however, was ultimately relieved.

M. Trousseau relates a case which is very similar in many respects to this one. In June, 1839, Count B. consulted him for a loss of his voice. His constitution had been a good deal injured by irregularities of living, as well as by syphilitic disease; and for the preceding four years he had been subject to epileptic fits. His voice, for a year or two before it was entirely lost, had been thick and indistinct. M. Trousseau was inclined at first to consider the aphonia to be owing to a chronic inflammation of the larynx, and recommended the local application of a solution of the nitrate of silver, and of the insufflation of a powder consisting of calomel and sugar, along with the use of antiphlogistic remedies, blisters to the throat, &c.

No relief, however, was derived from this mode of treatment; indeed, the symptoms became worse. An active syphilitic treatment was therefore commenced; but in about a fortnight afterwards the patient was suddenly seized with a fit of suffocation. MM. Marjolin and Cruveilhier were called into consultation, and, as both these surgeons regarded the case as one of syphilitic disease, the same remedies were continued, along with the bleeding from the arm, and the insertion of a seton in the neck. The following

night and day, the symptoms of asphyxia were terrible, and, as the patient seemed every moment about to be suffocated, it was resolved to perform the operation of laryngotomy. Before, however, this could be done, the respiration had ceased, the pulsations of the heart could scarcely be felt or heard, and the patient had all the appearance of a dead man; no blood flowed from the wound, and when the canula was introduced, no respiratory movements followed.

By first compressing the chest with great force, and pulling down the edges of the ribs, so as to empty the lungs of the air they contained, and then drawing them up, as in a deep inspiration, the air entered the canula These manœuvres were continued for nearly ten minutes, before the pulse at the wrist could be felt. The artificial respiration was persevered in for fifteen minutes more; and then the action of the heart and arteries was fairly re-established. Ten minutes later, the face was slightly convulsed; and soon afterwards an attack of general eclampsia succeeded, during which the air was drawn in with great violence into the chest, and this was followed by a state of stupor. In an hour and a half after the operation, the patient recovered his consciousness. From this moment, every thing went on well; the canula was changed twice every day, and the distress in breathing gradually became less and less. In the month of December (the operation had been performed in the middle of August) the patient appeared to be perfectly well, although he still wore the canula. At this period, the larynx was found to have acquired nearly double its usual volume, and the angle formed at the meeting of the two thyroid plates had become very obtuse. When the canula was closed, no air passed through the larynx from the throat. The diagnosis therefore was, that a tumour existed in the larynx, which would ultimately prove fatal. The deglutition began about this time to be impeded; and at length, in the following May, the poor patient died. A cancerous tumour was found on dissection.

The embarrassment in such cases is to determine what is the exact nature of the existent disease. M. Trousseau, however, lays it down as a maxim, that the operation is never useless, unless there be serious coexisting disease in some other part of the body at the same time; and even then that the life of the patient may be prolonged, although we cannot hope permanently to recover our patient. Whenever, therefore, the diagnosis of such a complication is uncertain, he thinks that we should always give the patient the

chance of benefit, by performing the operation.

M. Trousseau insists much on using canulæ of a larger size than are usually employed. He uses a middle-sized one at first, and gradually increases the size, until the air ceases to make almost any noise passing through it during a deep inspiration.—Journal des Connoiss. Med. Chirurg.

and La Gazette Medicale.

Magendie's Method of treating Neuralgia.\(^1\)—The remedy, par excellence, recommended by M. Magendie in the treament of obstinate neuralgia of the face and other parts, is electro-acupuncture. The needles should be made of an unoxydisable metal, and therefore those of platina are to be preferred. With respect to the mode of introducing them, it is better to push them at once, and with a sort of plunge, than to endeavour to drill them more slowly. In most cases, two needles are quite sufficient; one near the origin of the nerve, and the other near its termination or expansion. The former is then to be connected with the positive wire, and the latter with the negative wire of a galvanic apparatus. The patients usually describe the sensations experienced as if a spark or stream of lightning passed instantaneously along all the divisions of the nerve: at the same time the muscles of the part are thrown into contractions. The application is not to be continued

¹ Medico-Chirurgical Review, July, 1841, p. 202.

beyond a few cases, except in some severe cases, in which a continued stream must be maintained for some time. M. Magendie gives the preference to Clarke's electro-magnetic machine, as being altogether more convenient than any other for the purpose of electro-acupuncture.

If the neuralgic pain leaves one branch of a nerve to fix itself upon another branch, or upon another nerve, one or both needles are to be withdrawn, and should be inserted along the course of the nerve newly affected.

Several cases of supra-orbital neuralgia are adduced, in which the employment of electro-acupuncture speedily dispelled all suffering. The following one, in which the superior maxillary branch of the fifth pair was the affected

nerve, may deserve to be noticed.

M. Thelin had been subject to frequent attacks of most severe neuralgia, affecting the superior maxillary nerve of the left side, when he first consulted M. Magendie. The pain in the gums, lips, cheek, and ala nasi, were insupportable; the patient could scarcely utter a word, and as for mastication, that was impossible. All methods of treatment had been tried, and all tried in vain. What with having many of his teeth extracted, and being leeched and blistered, and physicked for months and months at a time, his constitution had suffered severely. He consulted M. Magendie on the 5th of March, 1838: at one sitting of a few minutes the pain was chassé. Since that period, whenever the neuralgia returned, he repaired to M. Magendie, and always left him cured of his sufferings. It is now several months since he has had an attack.

In the second volume of our author's lectures on the nervous system, he has related two cases of severe neuralgia affecting the tongue; in one of which the disease had lasted for four, and in the other, for one year. "A very fine platina needle was inserted into the trunk of the facial nerve, where it enters the parotid gland, and another was inserted into the affected side of the tongue. In this manner I was sure to act on the seventh and fifth pairs of nerves, since I punctured the trunk of the first and the lingual branch of the second. The needles were then connected with the wires of Clarke's machine. In one of the patients the pain in the tongue immediately ceased, but it fixed itself on the mental branch of the inferior maxillary nerve. The needle was forthwith withdrawn from the tongue, and inserted over the foramen mentale. The pain was driven from this point, but it was almost immediately transferred to the infra-orbital nerve. The needle was, therefore, introduced over the aperture from which it escapes. The enemy was thus pursued from one point to another, and ultimately was expelled before the patient lest my house. In the other case, the pain, when driven from the tongue, took refuge in the sub-orbital nerve; driven from this, it returned to the tongue, whence it was again dislodged. Ultimately the patient was quite cured."

Certainly such practice is infinitely superior to that of attempting to divide each nerve, that becomes successively affected, as practised, for example, by M. Roux in a recent case, where he divided first the mental branch of the inferior maxillary, then the lingual, and, lastly, the sub-orbital nerve—the enemy, however, retreated to the ethmoidal, where the knife of the surgeon

could not reach him.

"In such a case," says M. Magendie, "I pursue the pain, not with the bistoury, but with the galvanic current. Even should it fix itself upon the ethmoidal nerve, I should insert one needle into the nostril, and another into the orbit, along the upper part of its internal wall, at the place where the external nasal traverses it, thus attacking it both near its origin and its termination."—Gazette Medicale.

Remark.—We have no doubt that electro-acupuncture will relieve the suffering in many cases of neuralgia which are unconnected with structural disease of any part; but it is more than probable that the relief will be only temporary, unless appropriate constitutional means are employed at the

same time.—Rev.

M. Biot on the Diagnosis of Diabetes Mellitus by the Optical Appearances of the Urine. -M. Biot, the distinguished natural philosopher, informs us that, Dr. Mandl having inquired of him, if by the observation of the rotatory power the presence of sugar could be detected in the urine, he has performed numerous experiments with this view on the urine of patients labouring under diabetes mellitus. Chemistry enables us to obtain from such urine a substance, which is fermentable, and whose characters of solubility, of fusibility, and of crystalline appearance, are in every respect quite identical with those of solidified sugar from the grape, and of that produced by the prolonged action of sulphuric acid on starch. Now this fermentable matter, so obtained, is sometimes sweet or saccharine to the taste, and at other times it is altogether insipid. Hence some authors, as M. Bouchardat, in his excellent memoir in the Revue Medicale for June, 1839, have been inclined to conclude that there are two kinds of sugar in diabetic urine—one sapid and the other insipid. It is, however, more probable that tastelessness of the fermentable extract is owing to the union of the saccharine substance with other ingredients of the urine, such as the lactate of urea, the chloride of sodium, and extractive matter: this opinion is confirmed by the results of optical examination. For the purification of the insipid product, by repeatedly washing it with alcohol, leaves as a residue a sapid sugar, which is quite analogous in appearance with the sugar of fecula, susceptible of fermentation like it, and which exercises a rotatory power of the same character.

"My first care," says M. Biot, "was to ascertain if healthy urine ever presented traces of rotatory power. The result of my observations has been that it does so never, or at least very rarely, and then accidentally and scarcely perceptible. I long ago satisfied myself that urea, which enters so abundantly into the composition of healthy urine, exhibits no appreciable rotatory power. I had also found in diabetic sugar a rotatory power of the same kind (de meme sens) and of the same intensity as the sugar of starch—a fact which accords with the identity of ponderal composition, which che-

mistry attributes to them."

.... "I examined the urine of a diabetic patient under the care of M. Breschet. He had been for some time subjected to a diet of animal food chiefly, and had derived so much benefit from it, that he was considered to be on the road to a recovery, although still affected with diabetism. His urine exhibited a power of considerable rotation, directed towards the right hand of the observer, consequently in the same direction as the solid sugar of diabetic urine obtained by evaporation. Its deviation, observed immediately with the naked eye through a tube of 347mm, 6 in length, was + 10°, 6.2 In a case under the care of M. Rayer, the rotatory power of the urine, observed in a tube of the same length, exhibited a deviation to the right hand of 18° 5. This urine contained nearly twice as much saccharine matter as that of M. Breschet's patient. If this sugar might be considered as free, or as combined with substances which do not alter its rotatory power, the urine must have contained from 110 to 120 grammes in the litre—a proportion which does not exceed what M. Bouchardat has met with in extreme cases of the disease.

"But to estimate in this way, with exactitude, the ponderable quantity of saccharine matter by the mere extent of the deviation observed through a liquid medium, it is necessary that the two conditions now specified should have been previously determined by the chemist. It is for this reason that, until such analytical examination has been made, I restrict myself at present to merely suggesting the optical diagnosis as a means of comparison."

M. Biot then mentions some other circumstances, which confirm the

¹ Medico Chirurgical Review, July, 1841, p. 203.

² We give these figures as they stand in the French memoir, as we might commit an error in reducing them to an English standard.

opinion that diabetic sugar is strictly identical with that obtained from fecula.

treatment for the diabetes. The animal diet was, therefore, obliged to be suspended. The urine, under the influence of the inflammatory action, became of a deeper colour, and was found to contain much less sugar. Five days after the invasion of the inflammatory symptoms, and seven days after the suspension of animal food, the urine was found to exhibit no traces whatever of rotatory power: consequently all secretion of sugar had ceased.

"How much more easy it would have been to have treated this case, had the poor fellow come to the hospital at the commencement of his disease, when the simple inspection of his urine might have proclaimed at once the

danger of his situation!

"In another case from the practice of M. Rayer, that of a child in whom there was a copious diuresis, accompanied with extreme thirst, &c. I examined the urine optically, but could not discover any sign of rotatory power. Now on evaporating it, we found that there was exceedingly little residue left, and that this was not fermentable. The optical and the chemical examination corresponded, therefore, in their results. It is, without doubt, easy in such a case to ascertain the nature of the urine by evaporating it, and testing the residue; but it is still more easy to introduce some of the urine into a tube, and arrive at the same conclusion by simple inspection."

M. Biot suggests to physicians, that by following this plan, the optical examination of the animal fluids, they might ascertain whether the serum of the blood, &c. in diabetes contains any free saccharine matter. He has already found that the serum of healthy fluid has a rotatory power directed to the left hand—in consequence of its containing albumen, which acts in this direction. If the serum contained any sugar, we may expect that its rotatory power should be considerably weakened, or perhaps altogether changed. A similar occurrence may be expected in the urine itself, when it has become albuminous. These are questions well deserving the immediate attention of the scientific physician.

M. Biot concludes his remarks with these words:-

"The optical characters of the urinary secretion will furnish an easy, sure, and exact means of diagnosis, to enable us to ascertain in a moment its diabetic condition. In this way, we may recognise the commencement of the disease from its earliest stage, detect at once its different peculiarities, and follow it through all its phases. It will then be easy to discover the immediate effects of regimen and diet, as well as of any medicinal agents that may be administered."—Gazette Medicale.

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ART. I.—NOTE ON A CASE OF EXPOSURE OF THE VEN-TRICLES OF THE LARYNX.

BY THE EDITOR.

Through the kindness of Dr. Ashmead, our colleague in the Philadelphia Hospital, we had an opportunity of examining a case in which the larynx had been freely opened, some time ago, with the object of committing suicide. Adhesion had taken place between the edges of the posterior part of the wound, but the aperture anteriorly was sufficient to allow the inferior ligaments to be distinctly seen. The original wound appeared to have passed immediately through the ventricles of the larynx; and in the process of cicatrisation, considerable deposition had taken place anteriorly, so that the ligaments of the glottis are not left free to vibrate.

The following observations were made at our visit, and were noted by Dr. Selden, one of the resident physicians of the institution. They were confirmed at a subsequent visit with Dr. Pennock and Dr. Lakey, of Cincinnati.

First, The arytenoid cartilages approach during expiration and separate on inspiration, when the breathing is quiet. When it is agitated, they approach and recede irregularly.

Secondly, During deglutition, whilst the larynx rises under the base of the tongue, the opening of the glottis—rima glottidis—is completely closed by the contraction of the intrinsic muscles of the larynx.

[It was manifest, that this action must totally prevent the entrance of substances into the trachea during deglutition.]

Thirdly, When odorous substances were held to the nose—the aperture of the throat being open—their smell was correctly appreciated; but by no means as distinctly as when the aperture was closed.

[Perrault, Lower, and Chaussier found, that by making an opening into the trachea of an animal, smell was not effected, and that dogs, which were the subject of the experiment, readily ate food they had previously refused.]

Fourthly, During the production of voice, whilst the aperture was left free, the voice was exceedingly raucous and indistinct. When the aperture was closed, it was still very raucous, but the words could be distinguished.

In the production of all vocal sounds, the glottis appeared to be almost entirely closed. When the aperture was free, the simple vowel sounds could not be distinguished from each other; but the letter I, which is a diphthong, could be discriminated from the rest.

The great indistinctness of the sounds, when the aperture was open, appeared to he mainly owing to the tumefaction described above as existing anteriorly, and which acted, to a certain degree, as a damper to the vibrating cords. When the aperture was closed, and the air passed immediately upwards, greater freedom of vibration was permitted, and the different sounds were more appreciable.]

Owing to the tumefaction of the parts, no satisfactory observations could be made on the condition of the vocal cords in the production of grave and acute sounds.

ART. II.—REPORT ON BILLS OF MORTALITY.

The proper mode of framing public registers of deaths was pretty fully considered by a committee of the British Association, which was appointed at the meeting held in this city, in 1834, and reported to the subsequent meeting of the Association in Dublin, in 1835. At that time, "the Act for Registering Births, Deaths, and Marriages in England," was only in contemplation, and it was expected that a similar Act, for Scotland would be introduced into parliament. The English Bill became law in 1837, but the Scottish Bill, in consequence, as is said, of the opposition made to it by the parish-clerks throughout the country, has been hitherto postponed. It seems hardly possible, however, that the numerous benefits which our sister-country derives from an effective system of registration, should not, within a reasonable time, be extended to Scotland; and it may be hoped that the recent decided expression of opinion by the Statistical Section of the British Association, respecting the importance of the measure, will contribute to this end.

It is obviously of importance, therefore, that the attention of the profession in Scotland should be again directed to the subject of the registration of deaths, and to the advantages, as regards not only the interests of the public, but the progress of medical science, which may be expected to result from a well-regulated system of registration; and this more particularly, as the plan of keeping such resisters, introduced by the English Bill, (which is considerably different from that previously recommended by the Edinburgh committee,) and the statistical nosology recommended by the registrargeneral, for the use of practitioners in filling up the returns of the causes of death, appear to your committee liable to serious objections.

With two observations, contained in the letter on Statistical Nosology, prefixed to the table of diseases drawn up by Mr. Farr, and both of which are contained in the Remarks on the Registration of Deaths, that were laid before the British Association by the sub-committee formed at Edinburgh in 1834, all must concur.

The first of these relates to the importance of retaining the old division of diseases into plagues and sporadic diseases, or in other words, into, 1st, those diseases which are confined to limited districts and limited periods—

Report of a Committee of the Royal College of Physicians of Edinburgh, appointed to consider the best mode of framing Public Registers of Deaths. (Approved by the Royal College, February 17, 1841.)—Edinburgh Medical and Surgical Journal, July, 1841, p. 140.

which are either endemic or epidemic; and 2d, those which proceed from causes acting pretty uniformly on every large mass of mankind, and which are found accordingly, although influenced by climate and season, to prevail more or less, and to produce a larger or smaller annual mortality, in all

countries.

This distinction at once recommends itself to the common sense of mankind, and perhaps the most correct scientific account we can give of it is by saying, that one class of diseases is the result of specific poisons, of various sorts, introduced into the animal economy, and the other of morbid actions, excited by causes which are very generally applied, and are not necessarily deleterious in their effects. But the allocation of individual diseases, in one or other of these great divisions, is attended with difficulty, and the planadopted in the English table is in several respects unsatisfactory.

The second of the two observations referred to, is that, in sporadic diseases, it is generally easier to distinguish the region, or even the organ, primarily and chiefly affected, than to ascertain the precise nature of the dis-The importance of this observation appears to your committee not to have been sufficiently appreciated in forming the registration lists of diseases for England; and to suggest the only distinction that ought to be observed between a statistical nosology, and a nosology for the use of schools of

medicine.

To these we would add only one other preliminary observation, which is the foundation of the criticism to be offered on the tables of the causes of death, drawn up by Mr. Farr, and used in the returns under the English Registration Bill, viz.—That in constructing such returns, it is better to acknowledge ignorance, than to run the risk of proclaiming error-better to rest satisfied with a smaller amount of information, of which we can be absolutely certain, than to attempt to procure a larger amount, at the risk of the facts being so much blended with opinions, as to make numerical state-

ments a possible source of misapprehension and erroneous doctrine.

It is to be observed, that certain articles of information in regard to all the deaths that occur in a district, may be accurately and uniformly given in the registers, and be of much importance in various medical inquiries (because enabling us to construct tables illustrating with certainty the influence of various causes on health,) altogether independently of any medical opinions as to the causes of death; viz. the age, the sex, the precise date of death, the occupation of the deceased person, or that of the head of the family to which he belonged, the precise locality of his residence, the part of the body chiefly affected by the fatal disease, and, in a general way, the duration of The report of the Edinburgh sub-committee laid some stress his disease. on the importance of all registers containing details on the two last of these heads; and suggested, that all the deaths should be ranked as depending on acute or chronic diseases, according as the patient should have been known to be ill, and disabled for his ordinary occupations for less or more than six weeks before death. We regret to perceive no evidence that effectual provision is made in the registers kept under the act now in force in England for any of the last mentioned points being uniformly and regularly ascertained.

In proceeding farther, it must always be kept in mind, first, That to a very large proportion of the deaths registered, no report of the cause of death, by a medical man, will be annexed; and, secondly, That such a report, when given, unless much care be taken, may very often be founded in a great measure on opinion, not on ascertained facts. But, conformably with the principles above laid down, it is desirable that all the cases of sporadic diseases should be entered according to the seat of what was regarded as the chief affection—as acute or chronic disease of the head, of the chest, of the stomach or bowels, (including affections of the liver and other chylopoietic viscera,) of the urinary organs, of the genital organs, of the bones or joints, or of external parts. This may be done, as was observed by the

committee of the Association, without any report by a medical man; but it will of course be done with more accuracy by medical practitioners. Farther, it would be desirable that the accurate specification of the organ, or the more precise name of the disease, should be given only when furnished by a medical practitioner, and should be stated in a separate column; and that practitioners should be requested to specify the name only in those cases in which they can announce it with confidence and precision. Thus we might have, e. g. one hundred cases of death reported as resulting from diseases of the chest, forty of these marked as acute cases, and of these forty, perhaps only ten would be named; but the names given, being in conformity to instructions, as simple as possible, issued to all medical men, and to none others, would be understood alike by all, and therefore be deserving of confidence.

Thus we should have in every register of deaths, two distinct columns—the one to be filled up in all cases, the other only in some cases, from which, of course, two lists may be at any time made up, the first illustrating many important points relative to disease, although containing no nosological name; the second affording as good security as the state of medical science and medical instruction permits, that the names of diseases given in it are given uniformly, and applied similarly in all parts of the country. Each of these columns would be subdivided in the way to be afterwards mentioned.

The construction of the list of diseases, to be recommended by authority to all practitioners, is the subject of greatest difficulty connected with the registration of deaths, and that in which the plan adopted in England seems liable to the greatest objection. But we regard it as a fundamental principle, that practitioners should be strongly advised rather to content themselves with stating the seat of the disease causing death, and its course as acute or chronic, than to affix a name to it, without possessing certain evidence, from examination of the body or other unequivocal indications, of the

name they affix being the right one.

The importance of this caution appears from the tables published in England. We do not refer to the whole list of diseases, about 180 in number, given under the name of Statistical Nosology, which seems very deficient in simplicity, (comprising, for example, six distinct names for varieties of the continued fever of this country,) but would refer particularly to the abstract of the causes of death in the registers contained in page 120 of the first report. The names there given are certainly a great improvement on the ancient bills of mortality; but we think it easy to show that the objections justly urged by Mr. Farr against the old nomenclature, that "each disease has been denoted by different terms, and each term applied to different diseases—that vague, inconvenient names have been employed, and complications been registered instead of primary diseases"—have been by no means uniformly avoided.

The first objection which occurs to us to this "abstract of the causes of death," is, that cholera, (distinguished from the Asiatic or malignant cholera,) croup, diarrhea, thrush, dysentery, and erysipelas, are all set down among the plagues, i. e. the epidemic, endemic, and contagious diseases. We submit that the three first of these should be excluded from this head of diseases altogether; and this more especially as, besides 1655 cases of croup, ranked among the epidemics, we have, under the head of sporadic diseases, in the same table, 24 from laryngitis and 289 from quinsy. We apprehend that it would be much simpler, and more scientific, to have all these ranked together, in the first instance, as acute diseases of the windpipe, and very much doubt if any advantage is to be derived from more mi-

nute distinctions among them.

Again, we have, among the epidemic diseases, 460 deaths from cholera, 2755 from diarrhoa, and 675 from dysentery; and then we have, among the sporadic diseases, 170 from ulceration of the bowels, 3396 from gastro enteritis, and 853 from disease of the bowels, besides 437 from tabes mesenterica,

and 1963 from teething. We think it obvious here, that different names, and even different places in the system, must have been repeatedly given to the same diseases; and that all scientific purposes would have been better served, and with less chance of any erroneous inference, if the whole of these had been classed together as sporadic diseases of the intestines, acute or chronic, according to their duration; and if more specific names had been given only to a small proportion of them, under the caution already stated, that such names should be given only in those cases where practitioners are

certain of their being rightly applied.

In regard to aphthæ, dysentery, and erysipelas, we consider these diseases as being, in the greater number of instances which occur in this country, distinctly sporadic; and although we agree to the propriety of ranking some cases of each of these diseases among epidemic or contagious diseases, yet we think this should only be done, and that practitioners should be warned only to do it, when successions of cases have occurred within such narrow limits, both of space and time, as clearly to indicate the operation of some local and temporary cause; and in this case the term epidemic should be prefixed to the name of the disease. With this caution, we cannot doubt that the epidemic peritonitis, or puerperal fever, must likewise be occasionally added to this class of diseases.

Another important observation with regard to epidemic diseases is, that practitioners should be warned not to apply the terms fever or typhus, without prefixing, and being satisfied of the right application of, the term contagious or epidemic; because it is certain that at present the name fever is given to many febrile diseases, particularly of children, which are quite distinct from the continued fever, justly ranked as the most important of the

epidemic diseases of this country.

Thus the first class of diseases—the epidemic, endemic, and contagious—will be reduced, except on occasion of uncommon epidemics, to the following, which all admit to be strictly of this character—epidemic, influenza, small-pox, measles, scarlatina, hooping-cough, epidemic continued fever,

intermittent fever, syphilis, and hydrophobia.

The first group of sporadic diseases in the English register consists of those of the nervous system, and the number of deaths in six months, referred to this head, is 21,873, of which only 764 are marked simply as disease of the nervous system; all the rest have names assigned to them, and no fewer than 10,729 are named convulsion, besides which there is a separate head of epilepsy, comprising 570, and 4591 are recorded as cephalitis and hydrocephalus. It is obvious here, as, indeed, Mr. Farr has stated, that cases of various "undeveloped diseases, and the results of different diseases," many of these truly of the epidemic class, have been ranked as convulsions. If it were an instruction to medical men to avoid entering simply as convulsions, those cases which occur as a symptom or sequela of other diseases, this fallacious item in this great family of diseases would be rapidly diminished.

Instead of making separate heads of cephalitis and hydrocephalus, (the distinction between which will certainly not be understood alike by all practitioners,) we would greatly prefer using the general term inflammation of the brain or its membranes; observing, of course, the usual division of cases into acute and chronic, and making a separate entry of those cases which practitioners can accurately distinguish (by dissection)—as inflammation of the membranes, inflammatory softening of the brain, or acute hydrocephalus; to which should be added a record of those cases, whether acute or chronic, which can be distinguished as of a scrofulous or strumous character—of which, of course, the best characteristic is the existence (ascertained in like

manner) of tubercular deposits.

In regard to apoplexy and palsy, it is obvious that, in a pathological view, the distinction of these from one another, is not nearly so important as the distinction of either the one or the other, according as it has been produced

by inflammation, or by rupture of a vessel, or by organic disease, or independently of any of these. These distinctions may easily be marked by practitioners, and the record of them will be useful, provided only that they

have been ascertained beyond doubt by the appearances after death.

Thus the general distinction, and the only one uniformly observed under this head, will be into acute and chronic diseases of the brain, spinal cord, and nerves; and under each head we shall have a certain number of cases accurately distinguished—as inflammation, simple or scrofulous, apoplexy or palsy from inflammation or softening, from effused blood, from organic disease, or without obvious cause. Among the acute diseases we shall have idiopathic convulsions; among the chronic, habitual epilepsy, a certain number of cases of which, dependent on organic disease, will also be marked. The remaining diseases of this class contained in the abstract, and to be distinguished by practitioners, tetanus, chorea, insanity, and delirium tremens, demand no comment.

The diseases of the heart and lungs are so often combined, and it is often so difficult even for a medical man to point out the part primarily and chiefly diseased, that we are convinced the attempt to separate them in all cases, in statistical tables, can lead to no result on which reliance can be placed. We would therefore recommend that there should be no other general distinction of these diseases, than that into acute and chronic diseases of the chest, and the names of pectoral diseases, which seem proper for the guidance of practitioners in the more accurate specification, under those two

general heads, are the following:—

Inflammation of the Larynx or Trachea.
Bronchitis.
Bronchitis with Asthma.
Pneumonia.
Pleurisy with large fluid effusion, (i. e. Empyema.)
Consumption of the Lungs, (Tubercular.)
Other organic disease of the Lungs.
Organic disease of the Lungs with Dropsy.
Inflammation of the Heart.
Organic disease of the Heart.
Organic disease of the Heart with Dropsy.
Thoracic Aneurism.

The greatest difficulty respecting these diseases is, how to place those cases to which practitioners will be apt to give the vague names of asthma and hydrothorax. The former is probably always an attendant, although in certain constitutions only, on bronchitis, and seems to be almost always the cause of emphysema of the lungs; and even when this last affection has become complicated, as in the natural course of things is very often the case, with hypertrophy of the right side of the heart, enlarged liver, and dropsy, still the part primarily affected may be said to be the bronchia. But the best mode of registering such complex cases will be considered presently.

It is obvious that dropsies ought to be distinguished by the seat of the disease producing them, not by their own seat; and therefore that the proper distinction of cases terminating in this way is into dropsy from diseased lungs, from diseased heart, from diseased liver, from diseased kidney, and from diseased ovary, perhaps we might add, from diseased pleura, and from diseased peritoneum. It is certain, that, in a majority of dropsical cases, organic disease of more than one internal part exists, and is concerned in producing the effusion; still we are anxious to point out the importance of observing, as carefully as possible, the organ primarily and chiefly diseased, (e. g. whether it is the heart or the lungs that has first and chiefly suffered,) before registering the disease.

The list of diseases of the intestinal canal, and the numbers reported of

deaths, as produced by them during the first six months of registration in England, are as follow:—

| Teething, | | | ١. | | | 1903 |
|------------------------|---|----|-----|---|---|------|
| Gastro-Enteritis, | | | | | | 3396 |
| Peritonitis, . | | | | | | 82 |
| Tabes Mesenterica, | | | • | | | 487 |
| Ascites, | | | | | | 51 |
| Ulceration, . | | • | | | | 170 |
| Hernia, | | | . • | | | 252 |
| Colic, | • | | • | | | 58 |
| Constipation, . | • | • | | • | • | 461 |
| Worms, | • | ٠, | | • | | 264 |
| Disease of Intestines, | | | | | | 853 |

in addition to above 3800 deaths by diarrhæa, dysentery, and cholera, placed

among the plagues.

With regard to this table, we do not think it is going too far to observe, that it would have answered all scientific purposes much better, to have classed the whole of the cases referred to, with the ages of the patients, simply as acute or chronic diseases of the stomach and bowels; all the attempts made in it to give them more specific names, being at least as much calculated to mislead as to instruct. Thus, the two first and largest items in the enumeration ought to be struck out altogether, for teething, although often a cause of fatal disease, is not properly styled a cause of death; and what is properly meant by gastro-enteritis, as distinguished on the one hand from continued fever, and on the other from peritonitis, diarrhæa, dysentery, and ulceration of the bowels, we must profess ourselves quite unable to understand.

It would, it is conceived, be much better, ranking all these cases under the general heads of acute and chronic diseases of the alimentary canal, to direct the attention of practitioners to the following more particular names, to be given only to those cases to which they are sure of their being truly

applicable:—

Peritonitis.

Inflammation of Mucous Membrane of Intestines, (with its Sequelæ.)

Dysentery.

Idiopathic Diarrhœa.

Cholera

Scrofulous or Tubercular Diseases of the Intestines or Glands.

Other Organic Disease of the Stomach or Intestines.

Do. with Dropsy.

Hernia.

Obstruction of Bowels, (i. e. without Inflammation or Organic Disease.)

In regard to the list of diseases of the liver, under the distinction of acute and chronic, there should be a distinct head of inflammation, (and its sequelæ,) one of granular disease, (or cirrhosis,) one of other organic disease, and one of jaundice without organic disease. We would register dropsy along with the different heads of chronic disease of the liver, when it is present, but would annex a caution that, when organic disease of the liver is found in connection with organic disease of the heart or lungs, it should not in general be regarded as the primary or most essential disease. Thus, many of the cases in which dropsy is combined with liver disease, would be referred to the original and fundamental change of structure within the chest, on which both are in fact dependent.

¹ The same observation applies to worms.

We regard Mr. Farr's abstract as an improvement on the general table recommended by the sub-committee of the British Association, in so far as it makes separate heads of diseases of the urinary organs, and of the organs of reproduction, distinct from those of the abdominal viscera, because most of the diseases of these two sets of organs may be referred to their place in

nosology, even by those who have had no medical instruction.

But there is considerable difficulty as to the arrangement of those numerous cases of dropsy which are now known to depend in part, and often most essentially, on granular disease of the kidneys. That the importance of this disease is altogether overlooked in the returns made in England, and, indeed, that the classification of dropsical diseases is quite unsatisfactory, appears from this, that while 995 deaths (occurring in the last six months of 1837) are ascribed to hydrothorax, and only 51 to ascites, we have 5584 ascribed to dropsy of uncertain seat, and only three to granular disease of the kidneys; but how this confusion and ambiguity are to be corrected, is a more difficult question. We would suggest that practitioners should be advised to set down, as cases of granular disease of the kidneys, all cases in which the urine is permanently of low specific gravity, and coagulable by heat and acids; and then, that cases of this description, as attended by dropsy, by coma, or by diarrhæa, which seem to be the most usual modes of fatal termination of this disease, should be farther distinguished. There will, of course, be a number of cases of dropsy dependent on granular kidney, which will not be included under this head, their nature not having been determined by practitioners. These will appear as dropsies of uncertain seat, or as diseases of the head or of the bowels; but as this disease of the kidneys does not make itself known by any symptoms manifestly referable to the urinary organs, it seems impossible to have a record of its frequency extending even to all the cases which are reported by practitioners.

We think there can be no doubt as to the propriety of removing diabetes from this head of the nosology, and classing it among diseases of uncertain seat; and likewise, that the general term ischuria, should not appear in the list of diseases reported by medical men, but that cases of that kind should be reported as diseases either of the kidneys, bladder, prostate gland, or

urethra.

In regard to the diseases of the organs of reproduction, included in Mr. Farr's list, we have only to observe, that the fact of the deaths of females from diseases of this class, independently of parturition, being only 150 in 148,700 deaths, is sufficient evidence that many of the deaths which should have been ranked here, if they had been correctly understood, have been ascribed to other causes.

We think the classes of diseases of the organs of locomotion, and of the integumentary system, may be most simply designated as diseases of the bones and joints, and of external parts, and that several of the diseases stated as of uncertain seat, should be ranked here. It seems quite incorrect to enumerate, as of this last class, cases of inflammation, of hemorrhage, of abscess, of mortification, of scrofula, carcinoma, or tumour; the seat of every case of which must be known, if the disease is truly recognised.

After the head of abscess, that of ulcer, and that of diseases of the joints, there should be another head entitled scrofulous do., and by means of this and of the names already suggested, scrofulous diseases of the brain, lungs, and abdominal viscera, we shall have a fair view of the extent of the mortality from scrofulous diseases, as compared with that portion of the whole

mortality on which there are accurate reports.

Perhaps the only diseases which ought to be ranked as of uncertain seat, should be gout—dropsy, when the cause is obscure—diabetes, scurvy, purpura, and debility from unknown cause.

Thus, the list of sporadic diseases, according to which we should wish those cases, to which any specific names are given, to be arranged, would stand thus:—

Inflammation (acute or chronic) of the Brain. with Scrofula. Do. of Spinal Cord. Apoplexy or Palsy (acute or chronic) from effused blood. Do. from Inflammation or Softening. Do. from Organic Disease. Simple Apoplexy. Idiopathic Convulsions. Epilepsy. Chorea. Tetanus. Insanity. Delirium Tremens. Neuralgia. Inflammation (acute or chronic) of Larynx or Trachea. of Mouth, Tongue, or Fauces. Acute Gangrene of Do. Cancer of Do. Bronchitis. Bronchitis with Asthma. Pneumonia. Pleurisy with large fluid effusion, (or Empyema.) Consumption of the Lungs, (tubercular.) Organic Disease of the Lungs, (not tubercular.) with Dropsy. Inflammation of Heart. from Rheumatism. Organic Disease of Heart or great vessels. with Dropsy. Peritonitis. Inflammation of Mucous Membrane of Bowels. Dysentery. Diarrhœa, (Idiopathic.) Cholera. Obstruction of Bowels. Tubercular Disease of Intestines or Glands. Organic Disease (not tubercular) of Stomach or Intestines, Do. with Dropsy. Hernia. Inflammation of Liver. Granular disease of Liver, (or Cirrhosis.) with Dropsy. Do. Other organic disease of Liver. with Dropsy. Jaundice (without organic disease.) Organic disease of Pancreas or Spleen. Inflammation of Kidneys. Granular disease of Kidneys, with Dropsy. with Coma. Do. with Diarrhæa. Do. Urinary Calculus. Ischuria Renalis. Inflammation of the Bladder. Organic disease of Bladder.
Do. of Prostate Gland. of Urethra. Do. Do. of Testis. Inflammation of Uterus.

Cancer of Uterus.

Other organic disease of Uterus.
Do of Ovary.

Cancer of external parts.

Inflammation (acute or chronic) of the surface of the Body, (including Abscess, Ulcers, Erysipelas, Carbuncle, Chronic Cutaneous diseases.)

Do. with Scrofula.

Inflammation of Joints or Bones.

Scrofulous disease of Joints or Bones.

Other organic disease of do.

Gout.

Dropsy from uncertain cause.

Diabetes.

Hemorrhage from uncertain cause, (seat to be stated.)

Scurvy. Purpura.

Debility (including deaths from old age.)

But when we consider the very large proportion of fatal cases in which a complication of diseases exists, and the importance of recording as much as possible of the causes tending to the fatal event, we are decidedly of opinion that it is impossible to obtain the whole pathological information which such registers, in so far as they are filled up by practitioners, ought to convey, without a subdivision of the column assigned for the name of disease into two compartments, the one stating the "disease causing death," the other the "previously existing disease, if any," It is true, that different practitioners may arrange the information conveyed in those two columns differently; but as both columns will always be examined by any one wishing to obtain statistical information from them, this is of little importance.

The advantages of the plan which we propose for the keeping of these registers, will be best shown by the following schedule and examples:—

| Date. | Name. | Sex. | Age. | Marr'd or | Exact Residence. | Employ- ment, or that of Head of Family. | Seat of | on and Disease. Chronic. | Causing | f Disease Previously existing, if any. |
|-----------|-----------|------|------|-----------|---------------------|---|-----------------|--------------------------------|----------------------------------|---|
| May 10 | J. More | M. | 27 | S. | 12 Potterrow | Tailor | Bowels | _ | Dysentery | _ |
| 11 | A. Jones | F. | 40 | M. | 159 Cowgate | Husband, Blacksmith | - | Chest | Consump- tion | - |
| 15 | J. Brown | M. | 50 | M. | 220 High St. | Labourer | Chest | | Pleurisy | Epidem. Fever |
| 16 | M. White | F. | 5 | s. | 30 George St. | Father, Shopkeeper | Head & Chest | | Convul- sion | Hoop. Cough |
| 17 | J. Smith | F. | 60 | M. | 5 Rose St. | Shopkeeper | - | Chest | Dropsy | Org. Dis. of Ht. & Liv. |
| 18 | W. Reid | M. | 43 | М. | 80 Grass- market | Porter | Bowels | _ | - | _ |
| 19 | M. Forbes | F. | 50 | S. | 20 Canongate | Washer- woman | _ | Bowels | | Gran. dis. of Kid. |
| 20 | J. Tod | M. | 4 | s. | 30 High St. | Father, Writer | Head | _ | Inflam. of Brain (Scrofs.) | _ |
| 21 | М. Нау | F. | 3 | S. | 2 Rose St. | Father, Servant | | Chest | | - |
| 22 | J. Bell | M. | 65 | M. | 2 George St. | Servant | Head | - | - | - |

^{*} The columns containing names of diseases, only to be filled up by medical practitioners, except in cases of death from notoriously epidemic diseases, such as small-pox or hooping-cough.

The only other observation which occurs to us on this subject is, that the tables of mortality abstracted from the register may easily be made to exhibit the differences of health of towns and districts of the country, more satisfactorily than those published in England. The importance of the data thus afforded, is very well stated by Mr. Lister, in his first report, as follows:—

"Thave felt that it was of great importance, not only to give an abstract for the whole kingdom of England and Wales, but to exhibit the difference that prevails in different portions of the kingdom, to compare town with country, agricultural districts with manufacturing and mining districts, the hilly with the low and level, the maritime with the inland, the eastern and northern with the western and southern parts. Nor are these diversities matters of merely curious speculation, but may be made the source of important benefits, especially to the poorer classes. It was stated in evidence before the committee on parochial registration, in 1833, by the actuary of the National Debt Office, that the extent of difference which then existed was utterly unknown; that tables for the use of the poor, in reference to sickness and mortality, and in reference to the regulation of their friendly societies, could not then be constructed for two districts differing in character, from the want of such information as an improved system would afford; and that if two societies of poor men, residing in districts of a totally different character, were, at the same time, to apply to him for tables to guide them in preserving their societies solvent, he 'should be under the necessity of giving the same tables to both, though knowing perfectly that the rates which were adequate in one case, were inadequate in the other.' It was also stated to the committee on laws respecting friendly societies, by another eminent actuary (Mr. Milne), that no one table or scale of contributions can, with propriety, be adopted by all friendly societies; that one composed of members living in or near a manufacturing town, required a table very different from that which would be required in places where the population is less dense, and where a considerable proportion of the members are chiefly employed in the open air; but that these are differences which he could not 'pretend to estimate for want of data.' The useful principle of comparison may, if requisite, be carried out into a more minute system of subdivision than I have, in this first instance, deemed it necessary to adopt. But there was danger lest, in attempting a more subtle discrimination, we should lose sight of broad distinctions which it was important to observe; and it was necessary to remember, that to diminish by subdivision the number of facts on which calculation could be brought to bear, was materially to diminish their value. The extent to which division should be carried, is a question not to be decided by any established rule, and which necesarily admits of much diversity of opinion; and I have endeavoured (not unaided by judgments which I respect) to pursue a middle course between the opposite extremes of subdivision and condensation, dividing the kingdom into the twenty-five portions in which are exhibited abstracts of deaths at different ages."

According to the division thus adopted by Mr. Lister, the five largest towns in England, London, Manchester, Liverpool, Leeds, and Birmingham, are separated from the adjoining districts of country, and the mortality in each exhibited separately; but all the second-rate towns in England are united with the surrounding districts of country, and constitute but a small part of the population of the districts (containing from 200,000 to above

1,000,000 inhabitants) of which the mortality is given.

The deficiency of the information given by these tables, appears distinctly from attempting to compare the mortality in Edinburgh with that in any of the English towns. All the towns of which tables are given, separately from country districts, are commercial and manufacturing towns, and, therefore, not proper objects of comparison with Edinburgh. The English towns which resemble Edinburgh most, in the condition and occupations of

their inhabitants, are Bath, Oxford, Cambridge, and some of the Cathedral towns; but we have no record of the mortality of any of these, disjoined

from large districts of surrounding country.

In Scotland there are only seventeen towns, of which the population exceeds 10,000; and in order to have a fair exposition of the effects of town life, and of the mode of life in different towns, as compared with country districts, it would be of great importance that the mortality in all these should be stated separately from any country districts.

If these observations on the best plan for keeping public registers of deaths shall be approved by the Royal College, we would suggest that they should be made known, along with the earnest recommendation of the general principle of the measure by the Royal College, in whatever quarters may be thought advisable, in the view of aiding the object of obtaining a Registration Act for Scotland.

W. P. ALISON, Convener of Committee.

ART. III.—CASE OF SUBACUTE BRONCHITIS, WITH PLASTIC TUBULAR SECRETION.

BY W. F. RANKING, M. D. CANT., 1
Physician to the Suffolk General Hospital.

Bury St. Edmunds, August 12, 1841.

I was summoned on the morning of the 2d of June last to meet Mr.

Robinson, of Mildenhall, in consultation upon the following case:—
The patient, a gentleman, ætat. 20 years, of a nervo-sanguineous temperament, was seized on awaking by a paroxysm of coughing, accompanied by expectoration of sputa, tinged with blood. He had suffered three separate attacks, previous to the present one, of what was considered to be pure hæmoptysis, and dreaded accordingly as the forerunner of phthisis. He appears to have been for some time subjected to dyspnæa and palpitation

upon exertion; and catarrhal attacks, to use his own expression, always "settled upon the lungs."

The first seizure of his present ailment occurred in January last, a second occurred in February, and a third in April, all of which yielded to topical bleeding and digitalis. The present attack came on rather unexpectedly; our patient having been noticed the day before to be in excellent health. The expectoration consisted of masses, which, upon casual observation, appeared to be mucus, tinged with blood, and was expelled by an effort more resembling "hawking" than cough. Upon more minute inspection, these sputa were seen to consist of a whitish membrane, distinctly tubular, and accurately moulded to the form of the bronchial tubes, even to their most minute ramifications. The consistence of these varied; in some portions the membrane was tough and opaque; in others thin, and raised into minute pouches by bubbles of air. The blood was small in quantity, and could be easily removed from these tubes by agitation in water.

There was little disturbance in the system beyond that produced by mental agitation; the appearance of the blood having given rise to the greatest anxiety both to the patient and his friends. The pulse was 80, and soft; the skin cool, and tongue natural; and there was little or no pain in the chest. I made a very careful stethoscopic examination relative to the existence of the tubercular deposit, but could not discover any grounds of apprehension. The chest was of an unusually round figure, and gave a clear

sound on percussion throughout. The respiratory murmur was of an intensity almost puerile, and audible every where, with the exception of the neighbourhood of the larger tubes, where it was marked by a sibilous râle. There was considerable præcordial dulness, and extensive but not forcible impulse. There was less difference than natural in the "timbre" of the first and second sounds. "The diagnosis I formed from these was, subacute inflammation of the bronchial mucous membrane, with plastic secretion; many tubes obstructed partially by membranous deposit; and a dilated heart of less than average power."

Under the impression that digitalis, which had been prescribed on former occasions, was not suitable to the state of the heart, I gave him internally the acetate of lead—a remedy which has been found so useful in bronchitis, by Henderson, guarded in the usual manner by acetic acid draughts: aperient medicine had been exhibited before my visit. Externally to the chest I applied the unguent. acet. potass. tart. The acetate of lead was suspended after forty-eight hours, and eight-grain doses of alum were substituted.

Under this treatment considerable amendment was perceptible on the third day, and by the end of the third week every unpleasant symptom had

vanished.

The patient now remains in average health, and improves daily under a more generous diet than he had been allowed by his former medical attendant, and the daily use of tepid salt-water sponging, followed by friction with horse-hair gloves. Upon every tendency to catarrh, he applies the linimentum terebinthinæ to the chest.

The secretion of a membranous substance by the pulmonary mucous membrane is familiar to every one, as it occurs in croup; in fatal cases of which disease the bronchial tubes are often found to be filled with the same plastic material as is furnished by the lining membrane of the trachea. But the production of membranous secretion in the lungs of the adult, and unconnected with tracheal disease, must be considered as a rare event.

We have, however, several instances on record, by Barthollini, Ruysch, Tulpius, and Morgagni, under the names of bronchial polypus and bronchial

worms.

Hippocrates, also, probably witnessed something of the kind in the case of Phericides, whom he describes as spitting up "γαλακτωδεα," "white milky substances."

Dr. Bergen, of Frankfort on the Maine, has left us a description of an epidemic catarrh, accompanied by the expectoration of membranous tubes, which occurred in 1759. "Hanc tristem experientiam in propriâ filiâ feci, in quâ hoc singulare simul se obtulit phænomenon, quod ante mortem, tussi et screatu rejecerit tubulum membranaceum. Hunc tubulum judico esse portionem membranæ tubulosæ per ramos bronchiorum, durante morbo, generatæ."

Another case is related by Dr. Warren,² who is generally thought to be the first person who has given an accurate description of the disease. It will be seen, however, that he did not entertain any more concise ideas concerning it than Berger, who preceded him by many years. The case is as

follows:—

A girl, æt. eight years, of strumous habits, was suddenly seized with dyspnæa and cough, which yielded to medical treatment. At the end of six weeks she had a second attack, accompanied by night sweats; the symptoms ceased upon the expectoration of what Dr. Warren calls "a large polypous concretion." The girl suffered several relapses, but was at length freed from them entirely by the formation of an abscess, connected with caries of the os calcis.

Baillie had never met with a case of what he calls "bronchial polypus,"

but had seen preparations of it.

¹ De Morbis Popular, lib. vii. ss. xli.

Cheyne describes two forms of "bronchial polypus;" one of which is evidently nothing more than the fibrinous portion of blood effused into the bronchial tubes. The instance given by Laennec, as occurring in the progress of a case of phthisis, was of the same nature.

Dr. Casper' has published the case of a girl, æt. twelve years, also of strumous constitution, who, in the course of inflammatory catarrh, coughed up "a whitish yellow polypous body, of a tenacious character, and corre-

sponding to the bronchial ramifications."

A case will be found in the Med. Repository, vol. xviii, by Mr. Iliff, and also in a memoir read before the Royal Academy of Medicine, on oblitera-

tion of the bronchial tubes, by M. Reynaud.

The last case I shall mention, is one published by Dr. Starr,2 of Daventry, under the denomination of "chronic croup," and which exactly resembles the case of my patient. A girl, ætat. 22 years, complained of pain in the chest, with a sense of general oppression. Membranous tubes accurately moulded to the bronchial tubes, and, as in my case, tinged with blood, were expectorated. The blood was doubtless effused from small vessels, ruptured in the exertion necessary to dislodge the tenacious sputa. Authors are far from agreeing as to the precise pathological condition of the bronchial mucous membrane which gives rise to the plastic secretion. There are two principal and opposite opinions; one, which attributes the production of membrane, instead of the ordinary more fluid secretions of inflamed mucous tissue, to the existence of a high degree of irritation; another, which ascribes the phenomenon to an excess of the albuminous constituent of the blood. The generality of writers are in favour of the first opinion; the latter is embraced, among others, by Copland.3 The question is discussed at some length by Andral,4 by whom it is decided that a high degree of irritation is not sufficient per se to cause the secretion of plastic membrane; but that there must be, in addition, some special conditions of innervation or sangui-

It appears to me that neither of these opinions is the correct one, and that the true explanation is still to be sought for. If the more frequent formation of plastic membrane in children than in adults be due to the existence of a larger quantity of albumen in the blood of the former, then ought we to see such productions the common consequence, in them, of inflammations of the mucous tissues. Such, however, is not the fact. One half, at the least, of the diseases of infancy and childhood, consist of irritations, of greater or less intensity, of the pulmonary and gastro-intestinal mucous membranes. Yet in cases only of croup and diphtherite do we see the production of plastic membranes—cases which, numerically considered, are rare.

The same objections hold good against the opinion which refers this peculiar secretion to the intensity of the vascular excitement. If the degree of irritation were the true cause of such secretion, we ought to see it more frequently among the numerous cases of bronchitis and gastro-enteritis which present themselves to our notice. In our patient, as well as in that of Dr. Starr, every symptom opposed the idea of high vascular excitement; yet

was the formation of the membrane of the most perfect kind.

It is, however, in this as well as in many other points connected with our difficult science, far more easy to find objections to any particular opinion, than to frame a better; nor in the present instance do I pretend to do so.

The treatment pursued, was directed by the two following indications:—
1st, To allay the existing irritation; 2d, To prevent its recurrence. The first end was accomplished by counter-irritation, and the internal use of the acetate of lead and alum, the sedative and astringent properties of which

² Medical Gazette, Feb. 7, 1840.

⁴ Anatomie Pathologique, p. 484.

¹ Wochenschrift für die Gesammte Heilkunde.

³ Vide art. Croup, Copland's Dictionary.

restored the bronchial capillaries to their normal condition. The second I hope to accomplish by judicious regimen, by sponging and friction of the chest, combined with the constant use of flannel, and by having recourse to cuticular irritation upon the slightest occurrence of catarrhal symptoms.

BIBLIOGRAPHICAL NOTICES.

Allen's Essay on the Connection of Mental Philosophy with Medicine.

The subject, chosen by Dr. Allen for his inaugural essay, is excellent. It cannot be too strongly pressed upon the attention of the student who is desirous of excelling in his profession—that success, satisfactory to himself, can only be attained by a rigid study of the connection between cause and effect; and on this account we have been in the habit of recommending to the tyro, as well as to the farther advanced student, the perusal and reperusal of Abercrombie's interesting work on the Intellectual Powers, and the adoption of the excellent precepts inculcated by him.

Dr. Allen's design, in the Essay before us, appears to be twofold: first, to show the importance of the connection between mental philosophy and medicine; and secondly, to bring prominently forward the subject of which he has been, for some time, the able advocate in the pages of the Phrenological Journal.

On the importance of the connection of this subject with medicine, he and ourselves may entertain very different opinions; but we doubt not, that when a few years have passed over our heads, our sentiments will not be so widely apart. Be this, however, as it may, we can commend Dr. Allen's Essay for its style; and likewise for its freedom from that morbid excitement, which appears to exist in the writings of many amiable persons, when they touch upon a subject that is even remotely controversial.

Graves's Clinical Lectures.2

It has been not a little gratifying to us to find, that some of the works originally published in this Library have been considered to warrant a second edition, and that one of them has reached a third. The volume before us is not one of the least worthy of those; and its value has been enhanced by the additional lectures added by Dr. Gerhard. They are the republication of "a few of the Clinical Lectures given by him at the Philadelphia Medical Institute and at the Philadelphia Hospital, as a part of the Clinical Course of the University of Pennsylvania." The main subjects of these additional lectures are—Acute articular rheumatism, Pleurisy, Tubercular peritonitis,

¹ An Essay on the Connection of Mental Philosophy with Mcdicine. By Nathan Allen, A. M., M. D., Editor of the American Phrenological Journal and Miscellany.

² Clinical Lectures by Robert J. Graves, M. D., M. R. I. A., Professor of the Institutes of Mcdicine in the School of Physic, Trinity College, Dublin, &c. Second American edition, with Notes and a Series of Lectures. By W. W. Gerhard, M. D., Lecturer on Clinical Medicine to the University of Pennsylvania, &c. &c.

Pericarditis, Endocarditis, Tubercular meningitis, Chronic meningitis, apoplexy, Paralysis of the insane, Delirium tremens, Dysentery, Phthisis pulmonalis, Pneumonia, Laryngitis, Typhus and Typhoid fever—all subjects of great interest.

Hamilton's Table of Chemical Tests.1

We commend this table to our readers. It is prepared by a gentleman

devoted to his subject, and amply informed on its details.

"In this arrangement, the chemical agents (alphabetically arranged) have their tests on the next column, in alphabetical order and without reference to their delicacy, followed in the next column by the colour of the precipitate and delicacy of test; in the fourth, by the composition and nature of the precipitate; in the fifth, containing the author; and in the last, the remarks necessary in their employment. The whole arranged for the use of the physician, chemist, or apothecary, in a simple form, and embracing every information that the present advanced state of the science furnishes to the chemist."

MISCELLANEOUS NOTICE.

On the frequency of the Pulse in Infants.2—In a recent work by M. Jacquemier, it is stated that the minimum of frequency in the pulse of new-born infants is about 97, and the maximum about 156. Haller fixed it at 140, and Soemmering at 130. Every physician is well aware how easily the pulse of infants is rapidly quickened by restlessness, crying, &c., and that the only accurate way to determine it is to feel it during sleep. In the act of sucking, the breathing is hurried, and the circulation is therefore necessarily quickened at the same time. Valleiz, whe seems to have used the greatest precautions to avoid all sources of mistake, states, as the results of his examinations, that in infants from two to twenty days old, the minimum of frequency is about 76, and the maximum about 104. We may therefore consider the medium 87 as the average frequency of the pulse at this period of life. It has been generally believed that the frequency of the pulse diminishes as the age of the infant advances. The very reverse, however, seems to be the case, according to the experience of this author; for he found that, at seven months, the pulse is much more frequent than during the first week after birth, and that from that period it progressively diminishes in rapidity to about the sixth year.—Clinique des Maladies des nouveaux nés, par F. Valleiz, 1833; and Edinburgh Monthly Journal of Medical Science.

¹ Table of Chemical Tests. By James Hamilton, M. D., of Baltimore, prepared for the Maryland Medical and Surgical Journal.

² London Medical Gazette, August, 1841, p. 767.

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ART. I.—ON OPHTHALMIA.

By Edward Jenner Coxe, M. D., of New Orleans.

Dr. Dunglison,

Dear Sir,—Than ophthalmia, as generally observed, few diseases are more common, or, at times, prove more harassing and vexatious, as well to the

patient as the physician.

From the speedy and complete success attending the very simple mode of treatment adopted in two cases, lately presented to my notice, I am induced to send you a report of them, in the belief that this mode of applying many remedies will prove more serviceable in many cases of ophthalmia than that generally adopted. Whether correct or not, I feel disposed to attribute the success of this plan of treatment, almost entirely, to the absolute rest imposed upon the eyes, preventing any motion of the lids, and allowing nature full opportunity to exert her well known and powerful curative influence over disease.

Last winter, a man employed in the gas works of this city received an injury on the side of the face, which resulted in a very severe inflammation of the right eye, extending over the conjunctiva of the ball and lids. Supposing it would prove but temporary, he confined himself to bathing the eye frequently with cold water; so painful, however, did it become by the end of the second day, that he requested me to order something for it, stating at

the same time his inability to absent himself from work.

I ordered a dose of salts, and directed him to prepare an infusion of the pith of sassafras, when cold, to be mixed with an equal quantity of rose

water, and to be used as follows:

Envelope in linen a piece of stale bread, crust removed, of the size of the palm of the hand, saturate this with the above, apply it over the eye, and keep it on moderately tight with a bandage or handkerchief, which was on no account to be removed before seeing me again. The compress to be kept moist by pouring occasionally upon it from above a few table spoonfuls of the liquid.

The next evening he reported that the eye had been very comfortable, pain much diminished, the bandage had not been removed, and he had been

at work all day.

Upon examining the eye, I found the inflammation materially lessened, and directed a continuance of the same local treatment.

In two days from this time the eye was perfectly well.

Case Second. A black man, labouring under a severe attack of ophthalmia in both eyes, had been taking various medicines, and applying different washes for about a week without benefit.

The inflammation had been gradually increasing, attended with considerable pain and discharge, and when I saw him, the conjunctiva of both eyes

was in a high state of inflammation.

This case occurring shortly shortly after the above, I determined upon trying the same means, substituting for the infusion of sassafras and rose water, a weak solution of the acetate of zinc in rose water, directing him to keep perfectly quiet, and to apply the compress as above directed.

Considering it unnecessary to detail the daily progress, it is sufficient to

state, that in the space of one week a perfect cure was effected.

While upon this subject, I will further trespass upon your time by giving the result of a plan of treatment in an exceedingly violent case of ophthalmia for which all the usual remedies had been ineffectually tried.

At the time I tried the plan about to be mentioned, I was not aware of its ever having been recommended: I have lately, however, seen it spoken of

in terms of commendation by M. Velpeau, of Paris.

In the year 1824, I attended a healthy negress, aged about eighteen years, for an inflammation of both eyes, which continued to increase in severity, notwithstanding the most active treatment, consisting of frequent and copious general and local bleeding, emetics, nauseants, purgatives, a variety of local applications, confinement to a dark room, and the most rigid diet.

Finding the ordinary treatment of no avail, and feeling uneasy as to the result, I decided upon applying a blister over both eyes, with a soft compress

of old linen over them, and retained by a bandage.

At the expiration of eight hours, I removed the blisters, which had drawn very well, and discharged copiously, but not being able to procure a sight of the eyes, I directed a tepid bread and milk poultice to be applied, and renewed every four hours. The pain had become much less, and at the expiration of two days, when enabled to examine the eyes, I was much gratified to find the inflammation considerably reduced, and by continuing the poultice a few days longer, and then substituting the mildest washes, a perfect cure was accomplished in about ten days.

It may not be amiss to state, that, notwithstanding the apparent severity of the remedy, my patient did not complain of its causing any pain, but, on the contrary, that caused by the disease, which had previously been very great, was soon sensibly diminished by the action of the blisters, and was

no longer the subject of complaint.

In reference to the proper period for applying blisters over the eyes, in violent and obstinate cases of ophthalmia, it appears to me, that, after a very decided impression has been made upon the general system, by the usual depletory remedies, and not till then, they may be applied with the most

decided advantage.

As regards the modus operandi of blisters in these cases, it is unnecessary to dwell upon it, great discrepancy of opinion existing upon that point; I am, however, disposed to believe, that to the simultaneous discharge and excitant effect produced by them, we may reasonably attribute the positive curative effects displayed in this case.

With respect, I remain

Yours sincerely,

EDWARD JENNER COXE, M. D. No. 29, Camp street, New Orleans.

ART. II.—ON SOME DISEASES IN WHICH ALBUMINOUS URINE OCCURS.

By Thomas Williamson, M. D.1

One of the Physicians to the Leith Dispensary, &c. &c.

Since the promulgation of the views entertained by Dr. Bright and others, in reference to the urine containing albumen in certain diseased conditions of the kidney, members of the profession in general have willingly given their assent to this doctrine. But whilst, on the one hand, it cannot be denied that Dr. Bright, by his researches, threw light upon much that was formerly obscure, on the other, it may fairly be questioned whether the medical profession are not disposed to attach too much importance to the simple appearance of an adventitious principle in the renal secretion, as pathognomonic of structural change in the kidney. It is my object, then, in the present communication, to inquire whether there are diseases, apart from change in the renal structure, in connection with which albumen is contained in the urine, and by this means attempt to show that this phenomenon is not of such rare occurrence as is perhaps generally believed.

Although Dr. Bright, doubtless, is entitled to the merit of being the first to proclaim to the medical world, the fact of renal disease, coexisting with an altered constitution of the urine and dropsy, as mere symptoms of the primary renal change of structure, yet the existence of albumen in the urine of certain patients labouring under dropsy was made known in the year 1764, by Cotunnius, who, adverting to this phenomenon, as occurring in a young man affected with anasarca, to whom he gave cream of tartar, and increased by this means the flow of urine, says, "nam daubus libris ejus urinæ ad ignem admotis cum pene dimidium evaporasset, reliquum facessit albam in massam, jam coacto ovi albumine persimilem." Again, in the year 1770, we find Dr. Fordyce stating, that, "if the kidneys are relaxed or stimulated, chyle, serum, coagulable lymph, and even the red part of the blood may be thrown out." Dr. Darwin, in 1794, states, "there is a third species of diabetes, in which the urine is mucilaginous, and appears ropy when pouring it from one vessel into another, and will sometimes coagulate over the fire." In 1798, Rollo thus writes, "nitrous acid added to healthy urine produces slight effervescence, and gives it more or less of a reddish colour, but produces no precipitation. In some diseases, however, particularly general dropsy, or anasarca, this reagent, when dropped into the urine, produces a milkiness, and in some instances, a coagulation similar to what would take place if added to the serum of the blood;" and again, "in morbid states of the urine, the coagulable part of the serum is detected both by the nitrous acid and even by heat." In 1811, Blackall, Cruickshanks, and Nysten detected the same phenomenon. The latter says that he examined the urine of a young man labouring under acute peritonitis, under which he died; and among the other substances discovered, he states that it contained "a large amount of albuminous matter, which the urine does not contain in a state of health." Talking of the urine belonging to dropsical patients, he states that he procured some from a young man, eighteen years of age, who had been affected with ascites for several months, to all

¹ Edinburgh Med. and Surg. Journal, Oct. 1, 1841, p. 364.

² Cotunnius de Ischiade Nervosa Neapoli, 1764, republished in Thesaur. Sandifort, page 417.

³ Fordyce's Elements of Practice of Physic, 1770, p. 18.

⁴ Darwin's Zoonomia, 1794, vol. i. p. 316. ⁵ Rollo on Diabetes, 1798, pp. 443-446.

⁶ Blackall on Dropsies, 1811. ⁷ Ibidem, (see Appendix.)

appearance idiopathic; and among the other substances detected by chemical analysis, he adds, "as regards the great quantity of albumen found in this urine, it will be necessary to analyse, and support them by the examination of dead bodies, in order to determine if the dropsy had any share in its developement, or if it was dependent upon a particular state of the urinary organs." He also, alluding to peritonitic urine, says, that "it contained much albumen, which leads to the supposition that the urine becomes albuminous in peritonitis." In 1812, Dr. Wells² likewise directed attention

to the appearance of albumen in the urinary secretion. Previous to bringing forward cases for the purpose of proving the frequent existence of albumen in the renal secretion, altogether independent of any change of structure oscurring in the kidney, it may, perhaps, be well, shortly to advert to the opinions expressed by various authors of eminence as to the extreme rarity of its occurrence. Dr. Osborne states in connection with this subject, "in no instance have I met with coagulable urine without diseased kidneys, or healthy kidneys with coagulable urine." Dr. Christison states, that, although coagulable urine may be found without kidney disease, it is, nevertheless, "very rare." M. Rayer is said to have examined the urine of 400 patients taken indiscriminately, the result of which was, that only three presented albuminous urine without granular kidney. M. Solon examined the urine of 500 or 600 persons either in health or full convalescence, and found only one with albuminous urine. And lastly, Professor Forget, on two different occasions, examined the urine of between forty and fifty patients in his hospital, and "found albuminous urine only in those affected with dropsy, and in whom, when they did not recover, the inspection proved the existence of diseased kidneys."3

On the other hand, among those who strongly contend for the frequent appearance of albuminous urine without kidney disease, we may mention the name of Dr. Darwall, who illustrates his position by several cases, one or two of which we now call attention to. Talking of effusions which frequently attend diseased states of the heart, he observes:

CASE I.—In a patient who died in the Birmingham Hospital, during the present year, at a very early stage of the effusion, two months before his death, the urine was barely rendered turbid, but the evening he died it was nearly rendered solid by boiling. On dissection, the heart was found enormously enlarged, and the aorta very much diseased, the kidneys were

perfectly sound."

Case II.—Another case "occurred in a lady who had been suffering from pulmonary symptoms, and symptoms of disease of the heart for nine months. When we first saw her, at this time, the urine coagulated strongly, and continued to do so till the period of her death, three months afterwards; yet, while the left lung, the pleura, and the heart, exhibited serious disease of long standing, and while the liver was also diseased, though in a slighter degree, there was no appreciable change whatever in the substance of the kidneys."4

The three following are cases of pneumonia, and occurred in our own

experience.

Case III.—John Guy, aged 25, a stout, sober, and healthy young man, by occupation a seaman, after having been exposed to cold, was seized with rigors, which were shortly afterwards followed with dyspnæa, cough, and copious rusty-coloured expectoration; crepitating rale heard all over the right side; passed about a pint of urine in the twenty-four hours, of a dark straw colour, specific gravity 1012. In this case, nitric acid gave an albu-

¹ Nysten, Recherches de Physiologie, 1811, p. 255, 260, and 262.

3 See Christison on the "Granular Kidney," page 39.

² Transact. of a Society for the Improvement of Med. and Chir. Knowledge, vol. iii. p. 167. London, 1812.

⁴ Cyclopædia of Practical Medicine, vol. i. Article "Dropsy," p. 637 and 640.

minous precipitate to the extent of nearly one half of the volume of fluid employed, which precipitate withstood the action of heat. This occurred at an early period of reaction. The young man subsequently recovered.

Case IV.—Alexander Ballingar, an old soldier, aged 68, stated that he enjoyed during his life the best of health, with the exception of a severe inflammation of the chest, which was brought on by lying three days and nights on the field of Waterloo, after having been wounded in that engagement. He had been ten days ill with dyspnæa, cough, and coloured expectoration before seen by me, at which time all these symptoms continued. In addition, the right side of chest upon percussion gave a sound as dull as that emitted by marble; percussion on left side tolerably natural; bronchial respiration and bronchophony were heard distinctly all over the right side, while mucous râles, with puerile respiration, were present in the left side of chest; passed about a pint of urine in the twenty-four hours, of the colour of small beer, specific gravity 1022, which yielded no precipitate by heat alone. After the addition, however, of a little nitric acid, a copious albuminous precipitate was the result, which effectually withstood the reapplication of heat, showing that the urine had been previously alkaline. This man died.

Upon dissection, the whole of the right lung was found to be in the state of gray hepatisation, with extensive old cellular adhesions between the pleura costalis and pulmonalis of both sides; the left lung was in a state of active congestion. The kidneys and other organs were perfectly healthy.

This man, it should have been stated, was a drunkard.

Case V.—John Gray, aged 45, by profession formerly a soldier, had fought at Waterloo, and died the same day as the preceding case, labouring under all the symptoms of pleuropneumonia. Upon dissection, recent bands of lymph were found passing between the pleura costalis and pulmonalis of the right side, with some serous effusion into the corresponding pleural sac. Right lung in a state of red hepatisation, with small portions here and there having passed on to the gray, slight effusion into the pericardial cavity, with soft lymph between its serous coats. Kidneys perfectly healthy to all appearance, though rather pale in colour; both structures, however, quite distinct. Passed before death about eighteen ounces of pale coloured urine daily. Specific gravity 1012; heat and nitric acid gave an abundant precipitate of albumen.

Most of the following cases came under my own direct observation.

Case VI.—Mrs. Ross, aged 63, of sober and temperate habits, before death had for some years been affected with all the symptoms of scirrhus of the pyloric extremity of the stomach, such as, almost constant pain, anorexia, and frequent vomiting of a dark coloured fluid, somewhat similar to coffee grounds. Upon dissecton, the pyloric extremity of the stomach was thickened and hardened, which arose from its cellular tissue having become hypertrophied. Kidneys perfectly healthy, as were all the other abdominal organs. The lungs were loaded with frothy mucus. Left ventricle of heart in a state of hypertrophy without dilatation; its other cavities were perfectly healthy and natural; the two serous surfaces of the pericardium were universally adherent, by means of old cellular bands. During life there was nothing remarkable in respect of the renal secretion, as regarded quantity. Then, it was not examined. After death, however, the quantity of urine obtained from the bladder, though too limited to enable us to ascertain its specific gravity, nevertheless, by the agency both of heat and nitric acid, afforded an albuminous precipitate almost equal in volume to the quantity of fluid employed.

¹ In many of the succeeding cases, it will be observed, that the urine was submitted to chemical examination after the death of the patients. Now, though I am aware that on this account objections may be urged against the validity of such cases, on the ground of the serum of the blood exuding through the tissues of the bladder after death,

CASE VII.—Mrs. W. for three years before her death had laboured under symptoms of diseased stomach. Upon dissection, the pyloric extremity of the stomach was found in a well-marked state of what is usually denominated scirrhus of the stomach. All the other abdominal organs were healthy. Unfortunately, however, the kidneys were not minutely examined, so that we are unable to bring forward any positive evidence as to their natural or healthy state. We have, however, thought this case worth inserting along with the preceding one of scirrhus of the stomach, more especially as the urine which was obtained from the bladder was highly albuminous.

Case VIII.—J. A., 73 years of age, had been the subject of retention of urine for the last ten or twelve days of his life, seemingly dependent upon a paralysed state of the bladder. The urine was secreted in considerable abundance, and was of a dark greenish colour; specific gravity 1022. This urine contained a large quantity of albumen. Upon dissection the left kidney was very small and atrophied, containing a considerable sized calculus within its pelvis. The parenchymatous tissue of this kidney was almost entirely converted into serous cysts. A smaller calculus, of a peculiar flat button shape, was contained in one of those cysts at the upper part of this kidney. The right kidney was in a state of hypertrophy, but otherwise healthy. The urinary bladder was large, and immensely hypertrophied in all its coats; its inner or mucous coat was rough and granular, several small calculi were found in the urethral portion of the prostate gland, which gland itself was much increased in size.

Some writers upon the granular kidney, in establishing the existence of albumen in the renal secretion, as one of the pathognomic symptoms most to be relied on for pointing out the disease, deny, that, whilst the renal tissue remains unaltered, any organic lesion of the liver is capable of producing the phenomenon in question. It will be seen, by referring to a few cases which follow, that albumen was detected in the urine of individuals, in whom the tissue of the liver was, upon dissection, found to deviate from its normal condition, and to have assumed that peculiar appearance known by the term cirrhosis. Little value may, perhaps, however, be attached to such cases, seeing that it has been doubted by able authority whether this seeming change of structure be really an accidental deposit. I have, not-

withstanding, thought them worth recording.

Case IX.—A Prussian sailor fell by accident into the hold of his vessel. Immediately afterwards he was brought to the Casualty Hospital (Leith), when it was found that he had sustained a severe fracture of the cranium. He died in a few hours after admission, with symptoms of compression of the brain. Upon dissection, a large coagulum was found between the inner table of the scull and dura mater. The corresponding or left cerebral hemisphere was much compressed, and partially lacerated. The liver was large, and contained many large patches affected with cirrhosis. The spleen was soft, and the kidneys perfectly healthy. The urine was pale and colourless; specific gravity, 1016. When exposed to heat or nitric acid an abundant precipitate of albumen was the result. This man was uncommonly powerful, 30 years of age, and in the full enjoyment of health both previous to and at the time of the accident.

Case X.—J. Robertson, aged 30 years, a stout muscular porter, of intemperate habits, was seized with all the ordinary symptoms of delirium

tremens, from which he died.

Upon dissection, the traces of general cerebral congestion were apparent, without, however, any of the prominent effects of inflammatory action. Considerable serous effusion was found between the arachnoid membrane and pia mater, as also at the base of the cranium. The two serous surfaces of

and consequently mingling with the urine therein contained, nevertheless, as from experiment I know this to be by no means a phenomenon of universal occurrence, I think it but right to record these cases in conjunction with others.

the pericardium were universally adherent, by old cellular tissue. The left ventricle of heart was hypertrophied, without much dilatation. A ring of

osseous deposit was found surrounding the mitral valve.

The liver was about its natural size, but much affected with cirrhosis. The kidneys were perfectly healthy. The urine was of a dark straw-colour; specific gravity, 1018. Heat and nitric acid gave an albuminous precipitate, equal in volume to perhaps a fourth of the fluid employed.

Dr. Blackall gives an instance of albuminous urine co-existing with dis-

eased liver, which we shall here abridge.

CASE XI.—A. B. aged 45, sallow and bloated skin; pulse 100, hard; dyspnæa; loss of voice, and stricture about the hypochondria; abdomen swelled; frequent dark bilious discharges; ædema of legs; urine of the appearance and colour of rennet whey, copious at night, precipitating at 160; convulsions shortly came on, with fixed but not dilated pupils. Blood drawn was watery, and much cupped. Not more than two hours before her death,

the pulse remained still quick and hard.

Dissection.—Lung every where free from adhesion; about four ounces of bloody serum on each side of the chest; a small quantity of pale fluid in the pericardium; very little water in the abdomen. The liver hard, with a thick curled edge, its membrane being rather white, and greatly thickened, and its surface irregular with tubercles. A considerable portion of its substance was divided into hard brown tubercular masses; the other viscera of the abdomen sound. "I speak," says he, "particularly of the kidneys." It is clearly evident from this language, that his attention was in an especial manner directed to the kidneys, so that it is scarcely possible to conceive that, had their tissue been materially affected, the change would have eluded his observation.

Case XII.—James Lamb, aged 48, by occupation a carpenter, was squeezed between two logs of wood in a ship-building yard, and immediately brought to the Leigh Dispensary, where he soon afterwards died. Upon dissection, the four superior ribs of both sides were found fractured. The right lobe of the liver was lacerated and torn. Its substance presented the appearance usually known under the name of cirrhosis. The kidneys were quite healthy. The bladder contained so little urine as to prevent our ascertaining its proper specific gravity; but which, nevertheless, yielded a copious precipitate both by heat and nitric acid. This man had enjoyed good health previously.

CASE XIII.—V. Ward, aged 41, died labouring under the symptoms of phthisis and diabetes insipidus. Upon dissection, the lungs were found tuberculous. The liver had seemingly undergone fatty degeneration. The kidneys, and other organs, were healthy. The urine was of a pale colour; its specific gravity, however, was not ascertained; heat and nitric acid both

yielded a copious albuminous precipitate.

CASE XIV.—W. Saunders, aged 60, died of chronic ulceration of the epiglottis and larynx. Upon dissection, the liver was found partially affected with cirrhosis. The kidneys, as well as other organs, were, to all appearance, healthy. The bladder contained a small quantity of urine, which did not admit of its specific gravity being taken, but which yielded a copious precipitate by heat, which was not redissolved by the addition of acid.

The following are cases of various descriptions.

CASE XV.—William Hollingworth, aged 45, of very temperate habits, had long laboured under symptoms of diseased heart and blood-vessels, from which he at length sunk. Upon dissection, the left ventricle of the heart was greatly dilated, with proportional hypertrophy. The right auricle was greatly dilated, without hypertrophy. The inner membrane of the ascending aorta was covered with osseous laminæ.

The urine was of a dark straw colour; specific gravity, 1022; heat and

nitric acid both yielded an albuminous precipitate.

Case XVI.—James Stirling, aged 23, a young man previously in the enjoyment of good health, was seized suddenly at Hull with indisposition, for which blood was taken from the arm. On his return home he was labouring under severe inflammation of the vein which had been opened. Latterly, symptoms of purulent effusion within the pleural cavity took place, under which he sank.

Upon dissection, the veins of the arm were found filled with purulent matter. Several pints of the same fluid were contained in the right pleural cavity. The kidneys and other viscera were healthy. About a pint of urine was passed in the twenty-four hours, of a straw colour; specific gravity, 1012; heat and nitric acid in this instance formed almost a solid coagulum.

Case XVII.—Jane Patterson, aged 3½ years, had been affected with well-marked pertussis for about two months. By imprudent exposure to cold, an

attack of cynanche trachealis supervened, and terminated fatally.

Upon dissection, the lungs were found to be the seat of interlobular emphysema. The larynx was highly vascular throughout, having its mucous surface covered here and there with soft lymph. Heart, liver, kidneys, and other organs were perfectly healthy in this case. The urine was pale and colourless; its specific gravity was not ascertained; heat and nitric acid,

however, gave a large precipitate of albumen.

Case XVIII.—J. M., aged 5 years, had a mild attack of scarlatina, from which he was convalescing favourably. About three weeks after the appearance of the eruption, his parents observed him slightly swelled in the lower extremities. At this period he was suddenly seized with dyspnæa, and severe lumbar pain, stretching itself down the thighs; the breathing was hurried and laborious, with loud mucous rattle over the whole chest; the urinary secretion was almost suppressed, and the small quantity passed was of a high colour, and deposited an abundant precipitate of a brick colour; pulse 170, strong and full. He was immediately bled, and leeches were applied to the loins. The urine was examined, and its specific gravity found to be 1015, at the same time that it contained an abundant proportion of albumen.

Upon dissection, both lungs were found in a state of active congestion; all the other viscera were healthy, with the exception of the kidneys, which

were congested.'

As our limits will not permit a full detail of each individual case in which albuminous urine was detected, we must close this part of our subject by little more than a simple mention of those cases of disease in which this phenomenon was found.

1st. It was observed in the case of a young girl affected with pertussis.

This girl is now in the enjoyment of excellent health.

2dly. It was observed in a case of diabetes insipidus, since dead, without

a post mortem examination being obtained.

3dly. It was observed in a case of icterus, occurring in a previous healthy man, whose urine was of the low specific gravity of 1008. This man is since quite well.

4thly. It was observed in a case of chronic bronchitis, with diseased

heart, where there was no reason to apprehend kidney disease.

5thly. It was observed in the case of a man for many years affected with syphilis, having lost his nose and soft palate by ulceration. This man had taken large quantities of mercury.

6thly. It was observed in a man labouring under severe gastric fever,

owing to over-indulgence in eating and drinking.

¹ The appearance which the kidneys presented in this case was simply, as might have been a priori expected from the symptoms, that of active congestion, without the slightest vestige of any of the prominent appearances which, according to Dr. Bright, characterise the first stage of the affection described by him.

7thly. It was observed in a young girl affected with severe rheumatic

8thly. It was observed in a case of modified variola, occurring in a girl four years of age, and the period when it was noticed was during the second

day of the eruption.

We thus see that the simple appearance of albumen in the urine is not confined to those cases in which the structure of the kidneys has undergone an evident change; but that the same phenomenon is often visible in cases where the most careful examination fails to detect a deviation from the appearance which these organs ought to present in perfect health.

In attempting to account for the renal secretion sometimes containing albumen apart from kidney disease, we shall take advantage, in our subsequent remarks, of some of the cases which we have previously detailed, in

order to illustrate our explanations; for instance,

CASE XVIII. presents us with an example of scarlatina, in which the presence of albuminous urine was discovered. In that peculiar form of anasarca which follows the scarlatinous eruption, more especially after imprudent and too early exposure to cold, it has been found that the urine possesses characters strikingly analogous to those of the granular kidney, in so far as one of the pathognomonic symptoms of the latter disease is concerned, viz. coagulability by the application of heat, or upon the addition of nitric acid. This well known phenomenon has often been alluded to, and brought forward by those who are disinclined to attach that degree of importance to the simple state of coagulability which the urine may possess as characteristic of renal lesion, and which the partisans of Dr. Bright's doctrine value so highly. But, however little this example may be regarded as affecting the views of Dr. Bright and his followers, it cannot be denied that the almost constant and general appearance of albumen in the urinary secretion of scarlatinous dropsy, goes not a little to stagger the faith of those, who would believe in its existence only in connection with organic lesion of the kidney; for, in order to reconcile this seeming incongruity, they have recourse to the expedient of almost identifying the two diseases. Harmony is thus established by their referring the scarlatinous and renal dropsy to one and the same cause, and the example of those opposed to this theory thus seemingly overturned; because brought forward for the purpose of showing that there were other diseases besides that of the granular kidney, in which not only did dropsy follow as a secondary or symptomatic affection, but that the urine might also be found to contain a large quantity of albumen, altogether independent of, and unconnected with renal lesion.

The attention of the medical profession was, we believe, first directed by Mr. Hamilton to the fact, that in the scarlatinous dropsy, subsequent to the eruption, the kidneys, when cut into, present pretty much the same appearance as they do in the genuine form of Bright's disease in the first stage.

When we reflect upon the various forms which disease may assume; or when we compare the relative appearance presented by active and passive congestion, where none of the other more characteristic products of the former are present in addition to redness, we may well pause before we give absolute credence to such a sweeping proposition, as would declare that the kidneys, (admitting that they may externally present somewhat the same appearance in the two affections now under consideration,) are nevertheless perfectly identical in point of lesion. If such were the case, how comes it to pass that the mortality in the one disease so far exceeds that observed in the other? Ought not this very fact of itself to lead us to the suspicion that, in that peculiar form of disease of the kidney which Dr. Bright has described, and with which his name is associated, there is a lesion of the organ widely differing from that which exists in the kidney after scarlatina? The vascular tissue which enters into the composition of this organ is liable to various gradations of tint, depending proportionally upon the quantity of blood which it may happen to contain at the time of examination. In most

acute febrile or exanthematous affections, therefore, in which the natural and healthy function of the kidneys is either suspended or interfered with, it surely is not irrational to suppose, that active or passive congestion may, to a certain extent, be present in the renal substance; which peculiar condition of the vascular tissue we apprehend to be the real cause of the apparent similarity which exists between the real granular kidney and the same organ after scarlatina. The adherents of the doctrine which contends for the similarity of structural lesion, which the kidney is the seat of in the two diseases, for the purpose of throwing aside the simple state of passive congestion, and discarding this condition of the kidney as explanatory of the appearances which they assume it to present, may, with seeming plausibility in substantiation of their own proposition, bring forward cases of dropsy after scarlatina, in which the kidney presented unequivocal and irrefragable evidence of having undergone that pathological change described by Dr. Bright and other authors. All this, we most willingly admit, may take place; but, on the other hand, we are disposed to regard these isolated cases as exceptions to a general rule, and as simple examples of the coincidence of scarlatina, and it may be subsequent dropsy, in a system where the kidneys were previously the seat of organic disease. More matter might easily be brought forward, even from Mr. Hamilton's paper, for the purpose of showing that an essential difference exists between renal and scarlatinous dropsy; but this our present limited space will not permit.

We have alluded to congestion of the kidney, as likely to lead to the confounding of appearances presented by that organ in the granular kidney and scarlatinous dropsy; but we come now to consider hypothetically, as to the likelihood which exists of congestion also exciting an albuminous state of the urine. Although the general question has not yet been decided as to whether dropsy is to be ascribed to diminished absorption, or undue exhalation, it is, nevertheless, generally admitted in some cases to depend upon a want of balance between these two functions. Dr. Marcet gives a particular account of the chemical nature of the dropsical effusions found in various diseases, and in different cavities of the body, as in hydrocephalus, ascites, hydrothorax, &c., from which it would appear that the prevailing animal substance is albumen. As plethora has been shown by Magendie to be unfavourable to absorption, may we not justly consider this state of the system as one of the predisposing causes of dropsy? Now, if the due equilibrium which ought to subsist between absorption and exhalation be thus interfered with by means of plethora, we may easily perceive how an organ, or structure within any of the cavities of the human body, becoming the seat either of active or passive congestion, should stand as cause to the effect of serous effusion, which subsequently succeeds in the cavity in which they may happen to be contained. If such is the case with regard to the pleural or abdominal cavities, by extending the operation of the same law to the kidney, we may perhaps explain the existence of albumen in the urmal

The pelvis of the kidney may justly be regarded in the light of a membranous cavity, so that any circumstance tending to excite fulness or plethora of its vessels, will have the direct effect of disturbing the balance between the functions of exhalation and absorption, the exhalation being increased, whilst pari passu, the absorption is diminished, may therefore satisfactorily enough account for a more than usual quantity of serum mingling with the proper renal secretion, and consequently giving rise to the existence of albumen. Such, we apprehend, takes place in those cases of diseased heart, more especially where hypertrophy of the left ventricle exists; in which albuminous urine is not unfrequently found, as in cases tenth and fifteenth; for it must be obvious to every one, that in such cases, the kidneys, as well as the other viscera below the diaphragm, are liable to become the seats of congestion, either owing to increased arterial action, or the imposition of some barrier to the free return of the blood by means of the veins.

Were we to enter into the field of speculative inquiry, as to other probable

causes of albuminous urine, we might readily mention a few.

We have said that it may be caused by a species of dropsy of the pelvis of the kidney itself, owing to plethora disturbing the proper balance between the function of exhalation and that of absorption; the blood at the time being in a state of perfect health. But may we not refer this phenomenon to an essentially morbid condition of the circulating fluid itself? The ancients were well aware of the important part which the fluids sustain in the animal economy; and were inclined to ascribe much, if not most diseased action, to some vital change in the nature and quality of the fluids themselves. Thence arose their system of humoral pathology. Perhaps none of the fluids were regarded by them so much in default as the blood; but, like all other too exclusive doctrines, the pathology of the humoralist gradually gave way to that of the solidist, who, arguing from the changes perceptible in structure, rested too much on simple organic lesion, to the almost total rejection of the changes which might previously have been effected, in respect of the quality and composition of the fluids by means of which these solids were maintained. That the blood as a fluid is subject to disease, is, we believe, pretty generally admitted in the present day; and if we reflect that the blood is next in importance to what we term life itself, since by its undisturbed and healthy circulation, that most mysterious principle is upheld, it is not difficult to perceive how vast must be the baneful influence exerted on the living economy, by a deviation of this vital fluid from the true standard and composition of health. Accordingly, we find, as the result of rigorous observation, that, in certain diseases, the blood undergoes impor-

tant modifications.

Without entering into a minute chemical detail of this fluid, which would be foreign to our present undertaking, it may be sufficient to remark in a general way, a few of those diseases which most convincingly demonstrate to us the truth of these observations. First, then, we find that the absolute quantity of blood may be increased, as in plethora, or be diminished, as in that state of the system called anæmia; 2dly, in respect of its quality, important deviations from health are sometimes distinctly cognisable. various constituents of which it is composed may individually be either in a state of excess or deficiency; thus the solid material, or crassamentum, may be at one time too abundant; at another, the serum may preponderate or diminish in quantity or quality, whilst again the hematosine may vary as to its proportion. The fibrine, albumen, and salts entering into the composition of the serum, are also liable to important deviations. In the disease or peculiar condition of the system styled chlorosis, we have a familiar illustration of the deficiency of colouring matter. The blood is also liable to deficient coagulation. Huxham says, in talking of the blood in malignant fever, "the crasis of the blood is not sufficiently firm, too attenuated; the serum blackish, and tinctured with red." 'The opinion of early writers, with regard to the imperfect coagulation of blood in certain fevers, has been subsequently fully substantiated and confirmed by the experience of more modern ob-In yellow fever, for example, Dr. Stevens states, that the blood is in a much more fluid state after death, than is usually the case in other diseases. His words are, "the colour of the whole mass of blood, both in the arteries and veins, was changed from its natural scarlet or modena red, to a dark colour. I have frequently filled one glass with the black fluid taken from the heart, and another with the black vomit taken from the stomach. They were both so unlike the blood of health, and resembled each other so completely, that it was almost impossible to distinguish the one from the other; and from its appearance, it was very evident that such diseased blood could no more stimulate the heart, or support life in the solids, than putrid water can nourish vegetables, or carbonic acid gas support respiration.'11 In

¹ Stevens on the Blood.

Asiatic cholera, again, we have an instance where the blood has been found in the very opposite state to this, as regards consistence—being thick, and of a very dark colour; but perhaps one of the very best instances for the purpose of exemplifying the wonderful change which the blood sometimes undergoes is to be found in the disease termed scorbutus. Dr. Mead, in describing the blood in this disease, says, "as it flowed out of the orifice of the wound, it might be seen to run in different shades of light and dark streaks. When the malady was increased it ran thin, and seemingly very black, and after standing some time in the porringer, it turned thick, of a dark muddy colour; the surface in many places of a greenish hue, without any regular separation of its parts. In the third degree of the disease it came out as black as ink, and, though kept stirring in the vessel many hours, its fibrous parts had only the appearance of wool or hair floating in a muddy substance." In this affection, then, we see the wonderful influence which certain kinds of diet exert upon the quality of the blood. In the disease termed purpura hæmorrhagica, or hæmorrhæa petechialis, we have one of the most palpable instances of abnormal fluidity of the blood, as is evident from the circumstance of its issuing from its proper vessels, independent of any abrasion. The mucous membrane seems to be the tissue from which it is most prone to flow. Looking at all those circumstances, therefore, it will surely be admitted that albuminous urine may result from a morbid or abnormal fluidity of the blood.

Other agencies still, we conceive, may be capable of producing an albuminous state of the urine. Dr. Darwall says, "as a secreting organ, the kidney is especially liable to be affected by the pabulum afforded it; and should the blood reach it in an imperfect state, whether in consequence of indigestion, &c. we may expect that its function will be impaired." It is a well-known fact that the urine is often highly albuminous after having partaken of pastry and other indigestible substances. Our case sixth, not fully detailed, presents us with an example of albuminous urine following indigestion. May not nervous influence modify the renal secretion? Take for example the affection commonly termed hysteria as a familiar and daily instance of illustration. We all know that, in this affection, a pale and copious secretion of urine is one of its prominent symptoms, and it is to be borne in mind that this peculiar condition of the urine requires but little time for its developement. If, then, nervous agency has such a powerful influence in inducing the simple change of colour in the renal secretion, apart altogether from any thing like structural lesion, it surely is not difficult to suppose that a change or modification in its constituent elements, may be

effected through the same medium. We come now to offer a few remarks upon the true value of albuminous urine, as pathognomonic of organic disease of the kidney. We have seen that the granular kidney is not the only disease in which albumen makes its appearance in the urine. We have also enumerated several instances in which this phenomenon was present, without the most careful examination after death revealing to us any change of structure in the substance of the kidney. It must, however, have struck those who paid attention to the specific gravity of the urine, in those cases which we detailed, and where particular care was taken to ascertain this point, that in very few cases, indeed, had we any thing like the unusual low specific gravity so characteristic of the granular kidney. To this physical symptom, then, we would be inclined to attach more importance as a single symptom, than the mere presence of albumen in the urine. Dr. Prout says, "I am induced to conclude, that an albuminous condition of the urine taken alone, as a symptom, does not, in the present state of our knowledge, indicate the use of any particular remedy, or mode of treatment, but that, nevertheless, it is a symptom of which we ought to be always aware, since, taken in conjunction with the

others, it may be occasionally useful in directing us to form a more correct judgment of the general nature of the disease."

BIBLIOGRAPHICAL NOTICES.

Stewart on the Diseases of Children.'

The work of Dr. Stewart—owing to accident—has not reached us until recently, although it has been before the profession for several months. Dr. Stewart is the translator of M. Billard's work on the same subject, which we characterised on its appearance as having a better pathological foundation than any of the numerous works on the diseases of children that had preceded it.

The work before us is deserving of similar encomiums, and the valuable treatise of Billard well prepared the way for it. The object of the author, as stated by himself, was the condensation of existing knowledge from facts, both from his own sources and from the recorded experience of others, and thus to present, without the detail of cases, a treatise on the affections of children, in which the subject may be considered with a direct practical bearing; and in this he has succeeded in a great degree. One or two errors we have noticed in a hasty glance at the work, which he may correct in a future edition. For example, he states at page 247, that "the oil extracted from the seeds of the Artemisia santonica is an anthelmintic in common use, and is certainly very efficacious." No such oil has fallen under our notice, either in this country or elsewhere, the oil used here is that of the chenopodium anthelminticum.

Morton's Edition of Ellis's Formulary.2

This work has been long before the profession, and its sale exhibits how greatly such works are sought after.

A weighty difficulty with the young practitioner is to know how to prescribe the different articles of the Materia Medica, with whose main properties he may, nevertheless, be conversant. This difficulty is in some measure obviated by works like the one before us. From time to time, too, they require being brought up to the existing period; and in the present case, the respectable publishers have done well to enlist the services of so competent an individual as Professor Morton.

A Practical Treatise on the Diseases of Children. By James Stewart, M. D. 8vo.

pp. 547. New York, 1841.

² The Medical Formulary: being a collection of prescriptions, derived from the writings and practice of many eminent physicians in America and Europe. To which is added an appendix, containing the usual dietetic preparations and antidotes for poisons; the whole accompanied with a few brief pharmaceutic and medical observations. By Benjamin Ellis, M. D. &c. &c. Sixth edition, revised and extended by Samuel George Morton, M. D. 8vo. pp. 262. Philadelphia, 1842.

Western and Southern Medical Recorder.1

This is the title of a new candidate for professional favour on the western side of the Alleghanies. The school of Louisville has already a journal in connection with it; and the one before us is destined, we presume, to be, in some respects, the organ of the medical school of Transylvania University. Professor Cross is well calculated to be its editor. He is well read in professional lore; and is full of zeal and activity in the cause of science.

We cordially wish his periodical every success. It is a new labourer in the field of science, and cannot fail to bring forth useful fruits.

Philadelphia Medical Examiner.

This periodical is about to undergo changes. It receives as its acting editor Dr. Reynell Coates of this city. No one could come to the task better prepared by education; by the possession of a vigorous intellect, and of powers of description and of criticism, with which few are gifted. As a surgical writer, he is well known by several excellent articles in the American Cyclopedia of Medicine and Surgery, and numbers in many of our great cities have admired the mind and the language displayed in his lectures on Popular Physiology,—a subject so important to all, but which is unfortunately too much neglected.

The Examiner will still continue to receive the able assistance which its former editors are capable of rendering it.

MISCELLANEOUS NOTICE.

Philadelphia Medical Schools.-Notwithstanding the multiplication of medical schools elsewhere, Philadelphia retains the decided pre-eminence, which she has always enjoyed as a seat of medical learning. The great advantages afforded by her institutions, which have been engaged for some time in the business of medical instruction; the enviable reputation of the teachers; the materiel of all kinds with which they are so abundantly supplied; the well cultivated field, which she possesses for clinical instruction; richly endowed hospitals; well conducted dispensaries, into which diseases of every kind are received; to say nothing of the advantages afforded to the student by the quiet character of the city, and the reasonable rate at which he can supply himself with every thing of necessity and luxury,—are every where appreciated. Quiet and unobtrusive as her different schools now are, they have attracted to the city the usual number of students. The Faculty of Jefferson Medical College can congratulate themselves on a considerable accession to their numbers of last year; and if such be the fact now, how flattering must be the prospects hereafter. The professors under the new

^{&#}x27;The Western and Southern Medical Recorder, edited by James Conquest Cross, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence in Transylvania University, &c. No. 1. Vol. I. for Nov. 1841. 8vo. pp. 48.

organisation have given unmixed satisfaction, and are proceeding zealously and efficiently in the discharge of their responsible duties. The museum has obtained large additions, and is daily receiving more, and every thing proceeds harmoniously and effectively.

Two sets of clinical lectures are delivered in the week at the Philadelphia Hospital:—one on Wednesday, by professors of the University of Pennsylvania; and one on Saturday, by professors of the Jefferson Medical College.

The hospital fee admits the students to both courses.

Of the numbers at the University of Pennsylvania and the Pennsylvania College, we know nothing certain. We may state, however, on the authority of an excellent friend, who is attached to the former institution, that the attendance there is as usual; and on the whole the number in the city is about the same as last year.

It need scarcely be said, that if the multiplication of colleges, in any one place, be an evil, there are advantages in its train. It makes manifest the facilities which the place affords; and in the case of Philadelphia is calculated to confirm the reputation, which she has always enjoyed, of being the great centre of medical education in the United States. At no former time, has she so richly merited the reputation as at present, and it will be her own fault, should she exhibit fewer claims to the consideration of the medical student.

Berkshire Medical Institution.—The published catalogue of this institution, contains the names of 103 students. The number of graduates of 1840 was twenty-two.

Vermont Academy of Medicine.—The annual announcement contains the names of twelve graduates. The honorary degree of Doctor of Medicine was conferred on three others. The faculty is composed of the following gentlemen: Jas. M'Clintock, M. D. President, and Professor of Anatomy and Medical Jurisprudence; Joseph Perkins, M. D. Registrar and Professor of Materia Medica and Therapeutics; Frank H. Hamilton, M. D. Professor of the Principles and Practice of Surgery; David M. Reese, M. D. Professor of the Theory and Practice of Medicine; Chauncey Z. Mitchell, M. D. Professor of Physiology, General Pathology, and Operative Obstetrics; William Mather, M. D. Professor of Chemistry and Pharmacy; William C. Wallace, M. D. Professor of Ophthalmic Anatomy and Surgery; Egbert Jamieson, M. D. Demonstrator of Anatomy.

Anatomie Clastique du Doct. Auzoux.—In our August number of the present series of this work, we mentioned the artificial anatomical preparations of Dr. Auzouz, of Paris, and that he had appointed H. Rawls & Co. of Albany, his agents for their sale and distribution in the northern states. Since then, we have been requested to notice, that Dr. J. Millington, teacher of anatomy in William and Mary College, Williamsburg, Virginia, has been appointed agent for a like purpose, in the southern states.

As these preparations are at present little known in this country, we think it right to apprise our readers that they are as perfect models, or representations of the various parts of the human body, when divested of its integu-

ments, as can well be prepared by art. The preparations are made of *Papier maché*, a substance of great hardness and durability, and not very easily broken. Each muscle, or viscus, is cast in a mould, and afterwards coloured from nature. They are so constructed, that every portion of one side of the body may be taken to pieces, and put together again, with great facility; thus exhibiting the internal and external form of each muscle, in its proper form and proportions; or the entire subject, when put together. Each muscle carries with it the arteries and veins that belong to it, shown in an injected state; as well as all the principal nerves, which may be traced to the brain, and medulla spinalis.

Dr. Auzoux has been many years in bringing these models to their present state of perfection, and has been aided in his labours by several of the most experienced anatomists in Paris, so that full confidence may be placed in

the correctness of the objects represented.

To the medical student, before attempting dissection of the dead subject; and the medical practitioner who wishes to renew or keep up his anatomical knowledge, these models will prove of great utility and importance, especially in the southern states, and all hot climates, where animal decomposition proceeds so rapidly after death, as to preclude the possibility of studying anatomy upon the real subject. We are glad therefore to find that a trustworthy agent has been appointed in the south for the distribution of these excellent models, and we add a list of the preparations Dr. Auzoux is now prepared to furnish, and the prices he charges for them in Paris. They are

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|---|----|--|---------|
| | 1. | A complete model of a man five feet six inches high, showing | |
| | | all the bones, muscles, arteries, veins, lymphatics, glands, facia, | Francs. |
| | | &c. on an iron stand, | 6000 |
| | 2. | The above of smaller dimensions, and less developed in its parts, | 3000 |
| | 3. | The large model, without the lymphatics and other small ves- | |
| | | sels and parts; less developed than in the first model, | 320.0 |
| | 4. | Model of a man four feet high, on iron stand, showing all the | |
| | | muscles, and all the large vessels and nerves, to an extent suf- | |
| | | ficient for most purposes of study and instruction, | 1050 |
| | 5. | Model of a woman, with the pelvis, and organs connected with | |
| | | the uterus in an unimpregnated state, fully developed, and | |
| | | movable, | 1000 |
| | 6. | A set of fourteen models, (size of life) of the gravid uterus, | |
| | | showing the progress of gestation from conception to parturi- | |
| | | tion; and examples of enlarged ovary, and of extra uterine | |
| | | conception, | 500 |
| | 7. | Model of the female pelvis, and parts adjacent, with external | |
| | | and internal organs of generation, | 300 |
| | 8. | Seven models, or half the above set of uterine models, show- | |
| | | ing the progress of gestation at seven distinct periods, | 300 |
| | 9. | Model of the internal and external ear, of large dimensions, | |
| | | and separable to show each part distinctly, | 150 |
| 1 | 0. | Dissecting model of the brain and medulla spinalis, with the | |
| | | origin of all the nerves, and their primitive ganglia, | 150 |
| 1 | 1. | The leg and foot of the large model, No. 3, detached, | 150 |
| | | | |

To such of our American readers as are not conversant with the currency of France, we will observe that the *franc* is equivalent to about twenty cents of United States money; but adding the expense of package and freight from Paris to our ports, makes each franc equivalent to about a quarter of a dollar when the models are landed here; and they are not subject to any American tariff duty. From the great demand for these models at the present time, (as they are introduced into most of the medical schools of Europe,) Dr. Auzoux will not permit any of them to leave his establishment in Paris, until they are paid for there.

Dr. Millington requests us to state that he is now prepared to receive and execute orders for any, or all of the above models, at Dr. Auzoux's prices in Paris, with the addition only of the exchange value of money between this country and Paris, the freight and shipping charges, and any other actual costs of importation, (and insurance, if desired,) and five per cent commission on the value, for his trouble. And he will reply to any post-paid letters asking further explanations and particulars. But, on account of the conditions prescribed by Dr. Auzoux, he cannot transmit any orders to Paris without first receiving the value in cash, or approved notes or acceptances.

The models are in daily use by his pupils, and may be seen at his office in Williamsburg, Virginia, by such as wish to inspect before they purchase; and all orders shall be completed within eighty to a hundred days after they are paid for.

Report of the Obstetric Practice in the Philadelphia Dispensary, for the Fourth, Fifth and Sixth months, 1841. Joseph Warrington, M. D., Accoucheur.—Twenty-five women have been delivered, at or near full term, of twenty-five children, of whom eighteen were boys, and seven girls.

The average duration of labour in twenty cases was thirteen and a half

hours, the extremes being two and ninety-six hours.

The average time required for the spontaneous delivery of the placenta was, in nineteen cases, twenty minutes—the extremes being five and sixty minutes.

The fœtus presented the cephalic extremity in all cases. In nineteen cases in which the position of the fœtus was carefully noted, fifteen were in the first, two in the second, one in the third, and one in the fifth of the vertex.

In one case the occiput presented originally transversely to the left ilium, in consequence of contraction of the sacro-pubal diameter of the superior strait. In this case the shoulders were delivered transversely at the inferior strait. The subject of this case was delivered by forceps, which could be made to lock only with the pivot directed toward the symphysis pubis. One blade, therefore, embraced the posterior portion of the left parietal bone, and the other passed over the right divion of the coronal suture and down upon the face, the head having rotated to correspond with the first position of the vertex—the impracticability of adjusting the forceps to that ascertained direction of the head, is ascribed to the arrangement of the superior strait. The child did well; the mother had a slight attack of metro-peritonitis, but

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this was promptly subdued by free bleeding from the arm, and the appli-

cation of leeches to the left iliac region.

Two of the children were still born; one apparently in a state of asphyxia, the labour having been so rapid as to terminate before any assistance could be rendered; and the other in a semi-putrid state, the fœtus having evidently been dead some time before parturition.

One child was born in an extremely feeble state, after having been subjected to severe uterine contractions, several days successively, before the labour was terminated; it died in a state of exhaustion, four days after birth.

One child had erysipelas, commencing in the scalp, and spreading over the upper part of the body. It recovered under the persevering use of small doses of calomel, bicarbonate of soda, and powdered acacia internally, and the constant application of the mucilage of the slippery elm externally.

In one case the placenta was found to be adherent to the fundus of the uterus, requiring the careful use of the hand to separate it. Patient recovered

without subsequent accident.

There were two cases in which the placenta was retained—one during

five hours, and the other one hour and a half.

The placenta in both these cases, presented its whole internal disk to the os uteri, which was too small to transmit it. In one of these cases, also, the tonic contraction of the uterus was so feeble that 3ss. of ergot was given before it appeared expedient to use manual aid. In the other, also, the patient was suffering much from hemorrhage; free frictions upon the abdomen, and the introduction of the hand into the uterus, were immediately sufficient. Both these cases subsequently did well.

In the subject of the delivery of the semi-putrid fœtus, though only nineteen years old, there was a large varicose tumour on the left labium. It rapidly subsided after delivery, with no other treatment than the free use of

cold salt water.

Two of the cases which have been under care, required much attention for a long time before and after delivery. One had been the subject of inguinal abscess, supposed to have descended from the fascia of the psoas muscle, in whom the pressure of the gravid uterus was attended with great distress; although her labour was well conducted, she had an attack of peritonitis, which required great vigilance. She slowly recovered, without the recurrence of the abscess.

The other case was the subject of a scrofulous diathesis. She suffered during the latter months of pregnancy with severe pains over the whole abdomen, and especially in the right inguinal region. The labour was accomplished as in the other case, without extraordinary difficulty—but the patient passed through the various grades of peritonitis, metritis, and periostitis, and, finally, inguinal abscess. She at present offers some hope of

recovery.

For most important aid, in the management of these protracted and critical cases, it is my duty to acknowledge the unremitting zeal of the members of my class, who participated in the treatment, and my thanks are due to the surgeons who gave us their council in the two cases last mentioned. Most of the physical comforts enjoyed by these poor women were furnished by the "Philadelphia Nurse Charity." There were several other cases of milder forms of peritonitis. They all recovered well under the usual treatment

Quarterly Report of the Obstetric Practice in the Philadelphia Dispensary, for the Seventh, Eighth, and Ninth months, 1841. JOSEPH WARRINGTON, M. D., Accoucheur.—Fifteen women have been delivered of fifteen children, of whom nine were boys and six were girls.

The average duration of labour in eleven cases, was six hours; the ex-

tremes being two and twelve hours.

The average amount of time required for the spontaneous delivery of the placenta, in six cases, was nineteen minutes; the extremes being five and

thirty minutes.

In four cases the placenta was retained, from incapacity of spontaneous expulsion. In two of these, however, it was merely necessary to introduce the index-finger within the os uteri, to bring down an edge of the placenta. In another the entire hand had to be passed up for that purpose, while in the fourth case, in consequence of an atonic state of the uterus, contractions were produced by the introduction of the hand, after an apparent failure to produce this effect by the administration of two scruples of powdered ergot, in two drams of the vinous tincture of the article.

There were two cases of uterine hemorrhage after delivery. In one woman, (who at a previous pregnancy had placentæ præviæ, with profuse sanguine discharge during labour,) it was promptly arrested by the use of wine of ergot, and abdominal compression. In the other case, the patient was in advanced phthisis; it came on some time after she had been placed in bed. It was arrested only by the free use of wine of ergot, with additional quantities of wine, (to sustain her in her prostrate condition,) and also by

the use of firm compression of the abdomen and vulva.

The women all recovered.

The fœtuses were found presenting the cephalic extremity in ten of the cases which were noted—nine of these presented in the first position.

There was also one presentation of the breech, and one of the feet.

One child was still-born, (the subject of the breech presentation)—another died near a month after delivery, apparently of meningitis.

The other children were doing well at the time of our attendance.

Cause of Ciliary Motion. By Edward Forbes, M. W. S., For. Sec. B. S. &c .-- When, through the elementary animal tissue, (the passive gelatinous tissue, seen in the sponges), granules are interspersed, it becomes active, and presents motions of undulation, contraction, and extension. This granular tissue, in its simplest form, is seen in the hydra, or fresh-water polype, and in the bodies of the sertularian hydroid polypes. In the arachnodermata (or medusæ) we find the inactive gelatinous tissue becoming cellular, and constituting the greater part of the animal's body, but the motions of that body are effected by rings, bands, and processes, composed of the active granular tissue. In the order ciliograda of that class we see the largest known examples of those remarkable organs the vibratile cilia. These cilia are lanceolate, bent, flattened processes, not tubular, as some have stated, but solid. Neither are they webbed together, as they have been figured, but separate. They are placed in transverse rows on short bars of the granular tissue, which, by the way, is always translucent, while the gelatinous tissue of a tegumentary state, of which the cilia themselves are composed, is always transparent. That the vibratile motion does not originate in the cilia themselves, is proved by the fact, that if one be cut away from its translucent base, it always remains immoveable; and that the motion properly resides in the base composed of granular tissue, is evident, since, if the smallest portion of that tissue remain attached to one of the cilia, when it is cut away, it continues to vibrate. Now, if we suppose a ciliferous bar to present regular undulatory motions in one direction, such a motion as is seen in the bodies of some of the lowest trematode entozoa, the Tetrastoma Playfairii, for example, we have at once the explanation of the phenomena of ciliary motion in the ciliograda. Such an explanation will also account for the ciliary phenomena presented by the wheelbearing animalcules and other infusoria, where the undulations need only to be propagated in a circle to produce the revolving appearance. It may be questioned, whether there may not be a difference in the cause of motion between the voluntary cilia of these animals, and the involuntary cilia seen on certain membranes in others. But when we consider that the involuntary movements of the cilia round the margins of the remarkable cup-like processes which stud the branchiæ of the Echiurus, (discovered last winter by Mr. Goodsir and myself,) appear to originate in the same organisation, we may speculate on the probability of the same causes operating in both cases. A minute inquiry into the nature of the involuntary vibratile cilia seen on mucous surfaces among the higher animals is most desirable.—Edinburgh Monthly Journal of Medical Science.

On the Employment of Nitrate of Silver in White Swellings. By M. JOBERT, Surgeon to the Hospital St. Louis.—By a series of accurate and conclusive observations M. Jobert has shown that the best and most prompt means of overcoming articular pains in cases of white swelling, and to make the turgescence of the tissues disappear, consists in the external employment of an ointment of nitrate of silver. We have watched on fifteen patients the action of this remedy, in the wards of M. Jobert, and have been astonished at the prompt effects in long-continued and previously rebellious diseases. The treatment consisted in frictions on the diseased articulation with an ointment composed of thirty parts of lard to four of nitrate of silver. If the action of this be insufficient M. Jobert uses eight or twelve parts of the salt to thirty parts of lard. These ointments, designated by the numbers 1, 2, 3, constitute the whole of the treatment. Twelve or fifteen hours after the first employment of the ointment, and generally after the second friction, an eruption of small acuminated pustules appears, presenting a black point in their centre, and surrounded at their circumference by a small rosy areola. The liquid contained in the vesicle at first resembling thick milk, and rapidly assuming a yellowish-white appearance, afterwards becoming truepus. Each friction is accompanied by pains which last three or four hours. About the second or third day the skin becomes of a violet colour, and smarts acutely. The frictions must then be suspended, and not renewed until the parts are calmed. We do not enter into further details, as a full memoir on the subject is promised.

[It is very extraordinary that such accurate pathologists as the French should so generally continue to class as "tumeurs blanches" the very different diseases to which the joints are subject. We are thus left in doubt whether the above cases were scrofulous enlargement of the articular extremities of the bones, ulceration of cartilage, disease of synovial membrane, or of parts external to the joint. —Bulletin Général de Thérapeu-

tique. Juin, 1841.

Report on M. Louvrier's Treatment of Anchylosis by sudden and forcible Extension. By MM. THILLAGE and BERARD.—The following is the substance of the above lengthy report. M. Louvrier's machine has been employed on twenty-two patients, of whom only three have experienced ill effects, all the others having escaped injury. Most of the patients suffered excessive pain at the moment of operation. In no case has the anchylosed articulation recovered entire freedom of motion. Those patients most successfully treated are obliged to use a staff in walking; one only walks without a stick, but the restraint is evident.

With regard to the unfortunate cases: in one female, in whom the anchylosis of the knee was complete and the limb fully flexed, the application of the machine was followed by a very considerable rupture of the skin, luxation of the leg upon the posterior part of the thigh, and abundant suppuration which terminated in death three weeks after the operation. At the necropsy the articular cavity was found full of pus, the popliteal artery intact, the popliteal vein full of pus and its coats thickened. Many muscles were ruptured and softened; the anterior crucial ligaments softened; one of the

posterior softened, the other ruptured, attached by one extremity to the tibia and terminating at its free extremity by an osseous portion, which was evidently part of the condyle of the femur, fractured at the moment of operation.

Another patient suffered excessively acute pains at the moment of operation, and remained during some time in a sort of delirium occasioned by the suffering. Gangrene commenced on the next day, but was limited by the

efforts of nature alone, and the patient is actually cured.

In a third case, that of a young woman in whom the anchylosed limb was fixed at a right angle, the straightening was incomplete. M. Louvrier applied a piece of wood to the anterior part of the knee by means of which he hoped to press the limb into its natural position; but an eschar formed on the next day and the patient died in six weeks.

In another patient who died from other causes, the articular extremity of the tibia was found to be luxated upon the posterior part of the femur, the

internal condyle of the latter being fractured.

The number of these accidents, however, being small [!], the opinion of the reporters would be less unfavourable, were the ill effects balanced by real advantages; but as the limb after operation is as immoveable as an artificial support, they conclude:

1. That the application of the machine of M. Louvrier is followed by an

instantaneous straightening (redressement) of the anchylosed limb.

2. That it is not ordinarily followed by any severe symptom, primary or consecutive.

3. That when these accidents are produced they are frightfully severe,

and are ordinarily followed by death.

4. That none of the patients operated upon by this method have entirely recovered the free motions of the anchylosed articulation. We therefore report to the minister that the machine of M. Louvrier, although ingenious, is dangerous in application, for it will be always impossible to determine the nature of the anchylosis and to foresee the conditions which would offer some chances of success for its employment.

[The barbarousness of this most heroic chirurgery needs no comment from us to prevent its adoption. The facts, however, are well worthy of record.]—Bull. de l'Acad. Roy. de Méd. Nos. xiii, xiv, xv, xvi. Avril et

Mai, 1841.

Ligature of the Temporal and Facial Arteries in a Case of Epilepsy. By M. VELPEAU.—A man, thirty-six years of age, who had been affected with epilepsy for seven years, which followed a fright, was admitted on the 29th of March last into the hospital of La Charité, under the care of M. Velpeau. The attacks had occurred eight or ten times in a month, but daily for the last three months. He had some very severe attacks in the hospital. On the third day from his admission, M. Velpeau, emboldened by some facts scattered here and there in science, and which have hitherto passed almost unnoticed, tied the two temporal arteries. On the same day the patient had another fit, but slight, and on the following day he was perfectly tranquil. On the 4th of April M. Velpeau compressed the two facial arteries on the borders of the inferior maxilla. The fit did not return, and on the 5th of April the surgeon tied the two facial arteries. The patient quitted the hospital on the 15th of April, only having had one fit since the 5th, although for months he had not passed a day without at least one attack. He has promised to return to the hospital occasionally. is interesting, though further observation is of course necessary to show whether the ligature of the arteries was the cause of the cessation of the fits.—Bulletin Général de Thérapeutique. Avril 15 et 30, 1841.

Good Effects of the Extract of Belladonna in the Reduction of Para-By Dr. Mignor, of Bordeaux.—A child, three years and a half old, was the subject of severe paraphimosis; the glans red, swollen, and tender; the prepuce strongly drawn back, forming a thick and apparently adherent ring, the constriction of which completely stopped the circulation. This state had lasted eight days, and the sufferings were excessive. Reduction being impossible, leeches were applied to the perineum and hypogastrium; cooling drinks, emollient enemata, cataplasms, lotions, and hip-baths were used, but they only gave slight relief and but for a short time. strangulation became more menacing, and all the symptoms were aggravated; the glans was bluish and gangrene was threatened, when M. Mignot employed frictions around the glans, with an ointment composed of thirty parts of simple cerate to twelve parts of extract of belladonna. Under the influence of this remedy the circle of constriction relaxed, dilated, and the tissues gradually recovered their normal condition, without loss of substance or suppuration following.

The second patient had acute balanitis, brought on by a severe gonorrhea, and followed by paraphimosis. The patient refused operation although gangrene was threatened, when the belladonna was applied, which induced relaxation and rapid amendment. It was also applied in a case of phimosis accompanied by chancres and a sympathetic bubo, and three days after its employment the dilatation of the preputial orifice was complete.—Bulletin

Général de Thérapeutique. Avril 15 et 30, 1841.

On the Employment of Cold Affusion in the Treatment of Acute Hydrocephalus. By Dr. Munchmeyer, of Verden.—Dr. Münchmeyer observes that the medical world is greatly divided in opinion as to the value of this remedy; some persons greatly extolling its efficacy, while others regard it as altogether useless. He considers it to be a most important remedy, and one which will often save life when all other means have been useless. One great reason why cold affusion has met with so few supporters is to be found in the misconception which has prevailed with reference to the proper time for using it. It is certainly not always advisable to resort to it, and it should never be forgotten that its mode of action differs essentially from that of cold when kept constantly applied to the head. In the employment of cold affusion it is the secondary action of cold, as well as the sudden shock to the system produced by the mode of its application, from which benefit is expected, while in the case of cold lotions to the head it is the primary action of cold which is obtained. Cold affusion then must not be be looked upon as a directly antiphlogistic remedy, nor is its employment indicated during the early inflammatory stages of hydrocephalus, but rather when effusion, the consequence of inflammatory action has taken place, and a tendency to paralysis exists. After the subsidence of the violent symptoms of the disease, and when the patient has sunk into a comatose state, with a pale countenance occasionally suffused with a flush, dilated pupils, strabismus, and slow pulse, this remedy will frequently prove of excellent service.

In order, however, for benefit to be derived from it, it must be employed in an efficient manner. Dr. Münchmeyer directs that the patient should be taken out of bed, stripped of his clothes, and wrapped up in some simple covering (if waterproof the better), which leaves only his head exposed. He should then be placed in a sitting posture in a bath or tub, and the person who administers the affusion should mount on a chair and pour cold water upon his head, in a moderate stream from the height of five or six feet. This may be continued for a minute or two, and repeated twice or thrice. The patient should then be wrapped up in a warm sheet and placed in bed, where he should remain till it is thought proper again to have recourse to the remedy. At first, it will probably be requisite to repeat the affusion, in

the course of an hour and a half or two hours; but as the patient improves the interval may be longer, so that at last it will not be necessary to employ

it above two or three times daily.

The immediate effect of cold affusion is, that the patients awake from their comatose condition and begin to cry violently, which they continue to do so long as the water is poured upon them. They afterwards appear exhausted and pale, the skin is cool, the pulse small and very frequent. When placed in bed they usually fall into a dose, the pulse becomes more regular, and the warmth of the skin returns. By degrees, as with the repetition of the remedy the patients improve, they begin to have sound sleep, from which they awake in the possession of all their senses, recognise those by whom they are surrounded, and cease to squint. At the same time too a sweat, frequently of a critical nature, breaks out upon the whole body, and during its continuance the employment of cold affusion is very hazardous. The patient's sleep becomes more refreshing, and the comatose condition recurs at longer intervals; he begins to notice what goes on around him, the head regains its natural temperature, and the febrile symptoms disappear. The employment of affusion must, however, still be continued for some days, since relapses very frequently occur.

The paper is illustrated by five cases. In three the employment of cold affusion was perfectly successful, in one it produced temporary amendment, and the death of the patient was to all appearance owing to the apathy of the parents, who neglected to persevere in the treatment, while in the fifth convulsions and death followed affusion while the patient was perspiring

profusely .- Hannoversche Annalen. Band v. Heft 4.

Poisoning by a Tobacco Enema. By M. Tavignot.—A strong man, aged fifty-five, who had laboured for some time under dysuria from enlarged prostate, and more recently suffered from the presence of ascarides in the rectum, was subjected to the action of a tobacco injection, made by a decoction of 12 grs. of the tobacco in 6 oz. of water. Seven or eight minutes afterwards, the patient appeared in a slight stupor, with cephalalgia, and unusual paleness of the face. He complained of pain in the abdomen, and his answers to questions were troubled. Two purgative injections were successively administered. A stimulant potion was given; sinapisms applied to the inferior extremities, and blood taken to the amount of three palettes. Paleness became more and more marked, respiration more and more laboured, stupor, intelligence altogether lost; convulsive movements of the arms, then of the legs, and afterwards of the whole body, which progressively augmented during six or seven minutes, and were succeeded by extreme prostration. The patient fell into a comatose state and died.—Revue Médicale. Décembre, 1840.

On the identical Composition of Fibrin and Albumen. By M. LIEBEG, of Giessen.—M. Liebeg states that he has been able to dissolve pure fibrin in a saturated solution of nitre, at a temperature from 50 to 56 degrees. The fibrin becomes gelatiniform, merely leaving a few flocculi, which are insoluble. The filtered fluid possesses all the properties of albumen, and the composition of both is exactly the same. It is as follows:

M. Liebeg has also precipitated albumen under the form of globules, by adding a sufficient quantity of water to serum which had been neutralised by an acid, and he has likewise obtained fibrin from the blood-globules, by the proceeding described by M. Denis. Lastly, by adding a little caustic potash to albumen, M. Liebeg has precipitated it under the form and with

the properties of casein, by means of alcohol.—Gazette Médicale de Paris. 3 Avril, 1841.

Memoir of the Case of a Gentleman born Blind, and successfully operated upon in the eighteenth year of his age; with Physiological Observations and Experiments. By J. C. August Frantz, M D. M. R. C. S .- The young gentleman who is the subject of this memoir had been affected from birth with strabismus of both eyes; the right eye was amaurotic, and the left deprived of sight by the opacity both of the crystaline lens and of its capsule. At the age of seventeen, an operation for the removal of the cataract of the left eye was performed by the author with complete success. On opening the eye for the first time, on the third day of the operation, the patient described his visual perception as being that of an extensive field of light, in which every thing appeared dull, confused, and in motion, and in which no object was distinguishable. On repeating the experiment two days afterwards, he described what he saw as a number of opaque watery spheres, which moved with the movements of the eye, but when the eye was at rest remained stationary, and their margins partially covering one another. Two days after this the same phenomena were observed, but the spheres were less opaque and somewhat transparent; their movements were more steady, and they appeared to cover each other more than before. He was now for the first time capable, as he said, of looking through these spheres, and of perceiving a difference, but merely a difference, in the surrounding objects. The appearance of spheres diminished daily; they became smaller, clearer, and more pellucid, allowed objects to be seen more distinctly, and disappeared entirely after two weeks. As soon as the sensibility of the retina had so far diminished as to allow the patient to view objects deliberately without pain, ribands differently coloured were presented to his eye. These different colours he could recognise, with the exception of yellow and green, which he frequently confounded when apart, but could distinguish when both were before him at the same time. Of all colours, gray produced the most grateful sensation: red, orange, and yellow, though they excited pain, were not in themselves disagreeable; while the effect of violet and of brown was exactly the reverse, being very disagreeable, though not painful. Brown he called an ugly colour: black produced subjective colours; and white gave rise to a profusion of musca volitantes. When geometrical figures of different kinds were offered to his view, he succeeded in pointing them out correctly, although he never moved his hand directly and decidedly, but always as if feeling with the greatest caution. When a cube and a sphere were presented to him, after examining these bodies with great attention, he said that he saw a quadrangular and a circu. ... figure, and after further consideration described the one as being a square, and the other a disc, but confessed that he had not been able to form these ideas until he perceived a sensation of what he saw in the points of his fingers, as if he really touched the objects. Subsequent experiments showed that he could not discriminate a solid body from a plane surface of similar shape; thus a pyramid placed before him, with one of its sides towards his eye, appeared as a plane triangle.

Two months after the above-mentioned operation, another was performed on both eyes, for the cure of the congenital strabismus, by the divisions of the tendons of the recti interni muscles, which produced a very beneficial effect on the vision of the left eye; and even the right eye, which had been amaurotic, gained some power of perceiving the light, and, from being atrophied, became more prominent. Still it was only by slow degrees that the power of recognising the true forms, magnitudes, and situations of external objects was acquired. In course of time, the eye gained greater power of converging the rays of light, as was shown by the continually increasing capacity of distinct vision by the aid of spectacles of given powers.—Pro-

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ART. I.—ARMY MEDICAL REPORTS.

By Jos. J. B. Wright, M. D., Assistant Surgeon U. S. Army,

It was an apothegm of the ancient Jews, that "no man discharged his duty to his country, who died, without having planted a tree, built a house, and left a child behind him." If I was asked to suggest an improvement of the saying, I would intimate that the physician is obnoxious to the charge of neglect of duty to the community, who passes through life, without having at least attempted to discover some new fact, or verify some already expressed hint, which may sustain the relationship of an improvement, either directly, or indirectly to the ars medica; leaving it for others to clothe the proposition in the precise and appropriate language of an axiom.

It is with the hope of being able, if not to exhibit an undiscovered truth, at least to furnish evidence in regard to the comparative worth of some of the weapons with which we ordinarily combat disease, that the author of

the present paper ventures to appear in the pages of your journal.

For the last seven years, the Power that rules his destiny has afforded him opportunity to observe diseases, under the influences of the various climates, and the sundry circumstances which are supposed to modify complaints, as well as constitutions, in sections of the United States, varying from the twenty-sixth to the forty-fifth degree of north latitude, and through an extent of longitude, included between the Atlantic coast and the western limit of Arkansas.

It is proposed, in the series of essays, which the writer will offer for publication in your periodical, if they should prove acceptable, to limit attention, to a consideration in a general way, of the cases which have fallen to his lot, as one of the medical staff of the army; and he would here, in limine, bespeak the indulgent charity of the censors, whilst he pleads in justification of his attempt to confirm the opinion of the wavering, or dispel the doubts of the skeptical, a sense of bounden duty to his professional friends; and in excuse for its defects, that he lacks the facile skill which practice alone can give, in catering for the public taste.

The writer got an introduction to the diseases, prevalent in the army, at Fort Gibson, a post situated on Grand River, two miles above its entrance into the Arkansas, in the winter of 1833-34. This fort, whether deservedly or not, sustains the character of "charnel house of the army." Certain it is. that during the year 1834 and part of 1835, no term can be found in any

language, which would do injustice to its character for insalubrity, if we regard only the number of cases within its chain of sentinels, and the mortality which made the scene so tragical. During the summer of 1834, most of the troops west of Arkansas, dragoons as well as infantry, were on distant duty in the prairie: the former in a campaign to the Pawnee towns on the border of Mexico, and the latter building new posts on the Canadian and Red fork of the Arkansas. They all returned to the garrison about the close of summer with a very large sick report. The commands, therefore, were exposed to other influences than those which exist at Fort Gibson, and in justice to the good name it erst aspired to, the fact ought to be recollected. However, that the post would have been unhealthy, might have been inferred from à priori reasoning, if exposure to vicissitudes of temperature, and proximity to extensive low grounds, in a southern latitude, favour the supervention of disease.

During the writer's residence at Fort Gibson, the mercury in Fahrenheit's thermometer fluctuated through one hundred and twenty-seven degrees; rising in the summer months to 116, and falling in the winter to 11 minus zero! The almost unparalleled elevation indicated cannot be attributed to any inaccuracy of the instrument, or any fault in its site; the observation having been registered from one of two thermometers, which exhibited the lowest elevation of the mercury, both being placed in an airy position, under the piazza of the hospital, which afforded an effectual shade from the sun's

rays.

The valley of the Arkansas is subject to occasional inundations from the river, to an extent which often renders the labour of the husbandman of precarious avail, whilst it makes some parts of it, almost uninhabitable. I write with literal regard to truth, when I say, that in the vicinity of the river, from its mouth to the Verdigris, a distance of perhaps seven hundred miles by water, the traveller will scarcely meet a rubicund visage, or a face and form bearing the impress of good health. Perhaps an exception ought to be made in favour of those who more happily reside, in one or two of the towns on the river, but if the whole truth were gazetted, it is believed a statement of facts would not do even them any considerable credit for salubrity.

Having in view to exhibit recollections of cases which have come under my observation in the army, it may be proper to begin at the beginning. The present essay will relate, therefore, to the acute cases of the winter months, and the chronic forms of disease which were continued in the hospital, at Fort Gibson, since the previous autumn. A consideration of the most interesting cases, viz. the fevers of the summer months, may constitute

the second paper of the series.

The prevailing diseases of the winter derived their characteristics from vicissitudes of temperature:—Pneumonia, Pleuritis, Acute and Chronic Bronchitis, and Rheumatism, Catarrh, Phthisis Pulmonalis, and Ophthalmia, made up the register of cases admitted to hospital. The patients who were continued from the previous summer, and autumn, laboured under intermittent fever and its sequelæ, enlargement of the liver and spleen, chronic inflammation of the mucous coat of the stomach and bowels, assuming the

form of dyspepsia, chronic dysentery and diarrhæa.

The first named inflammatory affections were treated in the ordinary way, and with perhaps a common result. If any fact impressed itself with signal force on my attention, it was the eminent advantage of copious abstraction of blood from a large orifice, in the incipiency, or at least at a very early stage, of the disease. My observation affords me satisfactory evidence of the oft-repeated truth, that it is not so much the large quantity of blood abstracted, within the first few days of an intense inflammatory affection, as the effect produced by a first venesection, on which we should rely in the management of this class of diseases. Most of the cases of pneumonia and

pleuritis yielded readily, after the tone of the system was thus reduced, to counter-irritation over the seat of disease,—an occasional dose of calomel

and opium, and gentle antimonial diaphoretics.

The cases of acute bronchitis required ordinarily a resort to the lancet, after which they subsided for the most part, under the operation of common expectorants. When, however, the symptoms were unusually persistent, an irritation more or less extensive, over the surface of the chest, by blisters, or antimonial ointment continued for a greater or less time, rarely failed to extinguish the disease.

The catarrhal affections were made to succumb generally by a resort to an emeto-cathartic of sulph. magnes. and antim. tartarizat., followed by the expectorant and sudorific compounds, usually exhibited in such cases, with due attention to clothing, and avoidance of exposure to the weather. This form of disease, when neglected, betrayed a constant proclivity to

bronchitis.

Many of the cases of acute rheumatism creditably sustained the character

of this corps of the "grisly troop," for obstinacy.

My experience in the management of this affection has persuaded me that too much danger is apprehended of favouring its conversion to the sub-acute or chronic form, and its metastasis to the vital organs by liberal depletion. My success in its treatment has been more satisfactory, when in the forming stage I have abstracted blood liberally, and I have not witnessed the untoward effects which we are taught to fear from the measure. The symptoms have frequently exhibited, in the course of the disease, evidence of a pathological condition of the heart and pericardium, but not oftener, under my observation, when the lancet has been used, than when it was withheld.

Abstraction of blood by cups applied over the seat of pain, when the larger joints are involved, is a remediate measure to which I am much attached, from observation of its advantages, though in order to derive the utmost benefit from the scarificator, it is necessary that the operation should be performed in an effectual way—at least half a pint of blood should be taken from the knee, for instance, when much swelling and pain exist. I am persuaded that too little attention is given by the generality of practitioners to the condition of the first passages in acute rheumatism, having almost invariably found the disease much less refractory when an active purge is given in the commencement, and occasionally repeated during its progress. When the attack has not yielded to the means here noticed, with their common-place co-adjutants, I have rarely known it continue many weeks under the influence of minute doses of calomel and dov. powder. In the chronic form of the disease I have seen marked benefit result from the use of the vinous tincture of colchicum, when the synovial appendages of the joints might be presumed to constitute the seat of pain, and when the fibrous structures are principally implicated, my experience has induced me to rely on the mistura guaiaci, with more confidence than on any other individual article. The tincture of phytol. decandr. has in several instances commended itself to my favour as a remedy in this affection, the preparation being made from the berries; and the popular prescription of nit. potass. in diluted alcohol has seemed, in some instances, to have a claim to respectful regard. The usual adjuvants, viz. blisters, liniments, friction, &c. have been brought in requisition, but principal reliance has been placed on the means indicated above.

Phthisis pulmonalis at Fort Gibson, as elsewhere, merited its title to a place in the front rank of the opprobria medicorum. I allude to it here, with the sole view of remarking, that there is not perhaps, on the earth's surface, an inland spot more ineligible for a consumptive patient; the temperature sometimes undergoing a change of thirty degrees in a few hours. The prevailing winds during the summer are from the southwest, bearing on their wings the most oppressive heat, but ever and anon, old Boreas, inflating his lungs, asserts his empire, and from his habitation in the Rocky Moun-

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tains, sends his chilling breath over the plains below, scattering almost as many evils as fable attributes to Pandora's box. I will remark, en passant, that among the palliatives used in the management of the cases of pulmonary consumption, large doses of opium and sulphate of iron, as recommended I believe by Dr. Morton, were exhibited with a view to control the

colliquative diarrhæa, and with apparent benefit.

There prevailed at Fort Gibson an undue proportion of cases of acute and chronic ophthalmia. If any peculiar circumstances exist there to excite this form of disease, I am unacquainted with them. In many instances the cases were allied to rheumatism, and so far they may be accounted for; but a majority did not bear any such relationship, and I can only attribute its frequent occurrence, to the abrupt atmospherical vicissitudes acting upon, and determining disease in organs habitually predisposed to deranged action, by exposure to the intense light of the sun operating directly upon them, and indirectly, by reflection from the white sand, which constitutes the superficies of the soil in that vicinity.

It may be remarked here, that ophthalmia prevails to a very large extent among the Osage Indians, who inhabit a section of country on the head waters of Grand river. The frequency of the disease among the Indians has been ascribed to a custom which exists among them, of plucking out the hair of their supercilia, thus depriving the eye of the protection from the rays of the meridian sun, which this natural contrivance affords. My experience in the treatment of this disease has not enlarged in any considerable degree my knowledge of the means of combating it successfully. Most of the varieties of inflammation of the eye and its appendages were occasionally presented; the predominant form was conjunctivitis;—next, in frequency of occurrence, was sclerotitis; a few cases of iritis, of syphilitic origin, contributed to make up the variety. The conjunctival form, in its advanced stage, generally implicated the cornea, which became obscure, and occasionally ulcerated.

The cases were managed in the way taught in the schools, and throughout their course furnished very little theme for original remark. They have only left on my mind, at this distance of time, the impression, that in the advanced stage of conjunctivitis the nit. argent. collyrium is, by a majority of practitioners, used of insufficient strength; that in obscurity of the cornea, from protracted inflammation, the lunar caustic should be applied, without stint in substance, to its surface, and that the system should be made to feel at once, the mercurial impression. My acquaintance with the numerous cases which occurred there, gave me opportunity to test the value of aqueous solution of opium, applied to the eye, where great intolerance of light exists. The remedy has my unqualified approbation, having derived more advantage from it, in this way, than from any other application.

Having thus disposed in a discursive way of the prevalent diseases of the winter season, those cases which were continued in hospital from the

previous summer come next to be considered.

A majority of these patients it has been remarked, laboured under protracted intermittent fever, and its sequences. It need not be said that in malarious districts of country, this form of disease, which, if the doctrines of the schools be correct, can only originate during the heat of summer, may nevertheless exist throughout the whole year. It may be affirmed, indeed, that in southern latitudes it exercises most obstinate sway in the cold season; its right to empire seeming to be yielded to its more desolating brothers, of the remittent and continued types, during the months of their reign; and it is remarkable that it is very apt to make the quondam subjects of their rule, the victims of its operations. I am so well satisfied of this fact, that I have become a convert to the opinion of MacCulloch, which maintains as a general rule, that patients will not recover from the diseases of this family, so long as they remain in the country in which they acquired them. To arrest intermittent fever is the easiest thing imaginable, but to confer, by

medication, exemption from subsequent attacks-"aye there's the rub." The revolutionary action of the mercurials will not do it-no attention to diet, no avoidance of exposure, will do it; no course of tonics, given with a view to invigorate the impaired energies of life, will effect the object. Nothing in fine, will afford immunity from occasional returns of the paroxysm, but removal from the country. I have good reason for believing that a short residence in a section where the disease does not exist, will afford comparative security from future attacks, but what is the shortest limit of absence, which may suffice in ordinary cases, my observation does not enable me exactly to determine. It is not maintained that all who have had fever and ague must absent themselves from the region of country in which they became sick-spontaneous instances are of frequent occurrence, in the northern latitudes, where the patient will completely recover, after one or two series of paroxysms. Here the cause of the disease may be supposed to have but an ephemeral existence, or the malaria is in so slight concentration, as to require some accidental disturbance of the economy to enable it to institute its action; but in the southern climates, where the disease is endemical, I had almost said epidemical, nothing short of an alibi will

afford protection from relapse.

The writer has not in his possession a record of the cases of intermittent fever, which have been the subject of his charge during the last seven years, but he is safe in saying, that the number certainly amounts to some thousands. In regard to the quæstio vexata-of the expediency of administering medicines addressed to the primæ viæ, preliminary to the exhibition of the article having direct control over the paroxysms, his experience teaches that such precautionary measure is not so indispensable to the interruption of the disease, as was once believed. He has instituted sundry experiments, at different times, and under a variety of circumstances, with intent to get at the truth on this subject. All his inquiries persuade him that, very often, the time occupied in this preparatory process is, in effect, thrown away. When the symptoms manifest a deranged state of the stomach and bowels, of course this condition must be removed, by the appropriate medicines, in limine. Occasionally we meet with a subject of this form of disease, the tone of whose system we are required to reduce by blood-letting, in advance of the exhibition of remedies during the interval; but in a great majority of cases we will best succeed in abbreviating the sufferings of the patient, by entering at once on the use of the bark, or other article selected; for it will be found in those localities where the disease prevails most extensively, that we will not derive compensation for the suffering, involved in the repeated returns of the paroxysm, whilst we are preparing the system for the anti-febrile remedy, in any diminished liability to its recurrence, when it shall have been interrupted. An exception may be made to the above statement, in favour of the doctrine of critical days, or the alleged tendency of this disease to septenary periods, both in its approach and subsidence. I am well satisfied, that this quality is one of the elements which make up the character of intermittent fever; having in repeated instances secured to patients a greatly prolonged term of comparative health, by avoiding all interference, where extraordinary indications did not exist, until the day preceding the seventh, in quotidian, and the fourteenth in tertian, from the date of the attack, when I have been in the habit of exhibiting the quinine, in doses of from ten to fourteen grains during the twenty-four hours; and when the patient has been subject to repeated attacks, on slight exposure, I have given the article in the quantity above indicated, on the sixth and thirteenth days (according to the type of the affection) after the last paroxysin, seemingly, at least, with the effect of preventing a recurrence of the chill for several weeks.

In all the types of intermittent fever, I have relied mainly on quinine, giving it in the shape of super-sulphate, in solution. It is exhibited usually

in divided doses, during the apyrexia.

It is no mean praise of the article to say, that I have never witnessed its failure to put an immediate stop to the disease after the second paroxysm; in ninety-nine of an hundred instances, there is no return of that series after the exhibition of the quinine.

I have given a fair trial to all the various articles recommended as substitutes for the bark, but though many of them will certainly arrest the paroxysms, in time, none are entitled, in my estimation, to respectful notice,

in comparison with this ipse agmen.

The tourniquet practice has failed in my hands, and the plan of bleeding in the cold stage has not, under my observation, been productive of the almost miraculous cures, which Mackintosh, and others, give it credit for. I will confess, that I entertained from the first strong prejudices against the measure, though it came highly recommended by authority; and it is perhaps due to that authority to admit, that the idea comported so illy with all my pathological notions, in relation to the disease, that I have not frequently resorted to it. I am familiar with the ratiocination, by which the advocates of the practice explain the removal of the blood, in the congested viscera, but to my mind, it is not satisfactory. If that portion of the venous system, distributed upon the surface and extremities, was in a state of repletion, it might be alleged that by abstracting its contents, the blood, accumulated in the internal organs, might be coaxed to the periphery, to supply the approach to vacuum, resulting from the abstraction, and that thus, the balance of cir-

culation might be restored.

In the cold stage of intermittent fever, and in the congestive fevers, of which it is the type, the sanguiferous system of the entire surface, and extremities, is in a state of comparative emptiness. This vacuity of these vessels is in truth an essential condition of the pathological state which exists-the measure recommended is calculated, in its very nature, to aggravate this symptom, and, to my comprehension, it is not apparent how it can relieve the suffering organs, constituting the seat of the congestion. I am aware that I incur the imputation of medical heresy, but I repeat that the process of reasoning, by which authors enforce the advice to bleed from the arm, in congestion of the larger viscera, has never seemed to me even plausible; and moreover, a frequent resort to the practice, in forms of disease in which congestion gave character to the case, has not tended to dispel my misgivings of the soundness of the doctrine. I can readily conceive that in those cases which have ultimately terminated happily, in my hands, reaction was due to the warmth externally applied—the extensive counterirritation of the surface, and the remedies addressed to the stomach and bowels, rather than to the venesection,—I had almost said, in spite of it.

It may be true that abstraction of blood, during the chill, where the vital forces are not oppressed beyond the power of successful resistance, may moderate the subsequent reaction, and thereby, in some instances, contribute to the cure; but a very large majority of our patients, in sections of the country where the disease prevails to its greatest extent, will not bear with impunity such subduction of vital energy as is implied in the operation. The danger of increasing the hydropical diathesis in most of the protracted cases is not, I conceive, the least evil to be apprehended from the practice.

The cases of chronic enlargement of the liver and spleen, were treated, the first, by mercurials, given to the extent of slight ptyalism—counter-irritation over the diseased viscus, by blisters—cupping; and the empl. hydrarg. applied to the gently irritated surface, with attention to the minor considerations, which suggest themselves to every physician. The engorgement of the spleen yielded, in a majority of instances, to similar means, (the mercurials being omitted, for the most part), with the additions of the preparations of iodine, used externally and internally. The hydropical affections, bearing the relationship of sequelæ to the diseased conditions named, subsided ordinarily under the methodus medendi instituted for the removal of the latter. Squill and digitalis were generally conjoined to the mercurials,

where there existed anasarca, or ascites. An occasional dose of comp. pulv. jalap. uniformly facilitated the removal of the infiltrated serum. Subsequent to the removal of the engorgements, and the resorption of the effusions, the

patients were put under the influence of a tonic course.

I had here an opportunity of testing the claim to notice of an indigenous article of medicine, but slightly used, I apprehend in any country. I allude to the Indian hemp—the apocyn. cannabinum. I am aware that the profession is not to be informed that it possesses medicinal virtues, but the opinion is entertained that if it were better known, it would be more esteemed. I have used it with marked benefit, in hydropic diseases, in form of decoction of the root, in such quantity as slightly to nauseate the stomach. It has rarely failed in my hands to excite free diuresis. The objection to the article is, that it is very apt to excite vomiting, and sometimes, when it acts

on the howels, painful tormina.

Chronic dysentery was of very frequent occurrence. Its subjects were, in a majority of cases, those whose general health was impaired by repeated attacks of int. fever. It presented itself in every grade of violence, and often proved obstinate and intractable. The medication consisted in cupping and blistering over the region of the colon—the exhibition of calomel, opium, and ipecac. followed up at intervals with castor oil,—mucilaginous drinks, and opiated injections, with an entire avoidance of all ingesta which could in any wise add to the irritation of the mucous tissue of the larger bowels; but the internal remedy which most commended itself to my favour, was the prescription of Dr. Stokes of Dublin: viz. the hydr. cum. cret., with, and without, opium. It is, in my estimation, an article having high claims to confidence. The acq: camphorat., et elix. vit: with addition of sol. sulph. morphiæ, at regular intervals of a few hours, has in numerous instances

controlled the affection, when other remedies have failed.

A memorable case of dysenteric affection limited to the rectum, occurred during the time to which these remarks relate, which has left an enduring impression on my memory. It was that of Lieut. W--- a promising young officer who was convalescent from a grave form of bilious remittent fever, and whose morbid appetite was not to be satisfied but by such indulgence, as endangered, and ultimately cost him his life. The case was managed on general principles. It would be unprofitable, therefore, to narrate the particulars; it is sufficient to have intimated its issue, but I would here take occasion to remark, that this portion of the intestinal canal has always seemed to me more isolated from the rest of the body, than almost any other viscus. It has fallen to my lot subsequently, to witness inflammatory affections of this intestine, pursuing an onward course, unchecked by medication, to disorganisation, and death; leaving the impression that however intimately it may be connected by sympathy, in some of its diseased conditions, with the system at large, its morbid states can scarcely be reached by constitutional remedies, and my experience teaches, that local appliances do not afford so much satisfaction, as in most other cases of inflammation, in which the whole system is ultimately brought to sympathise with an affection, at first purely local.

The common forms of diarrhea were readily controlled by the opiate, astringent, and cretaceous preparations, with the occasional addition of minute quantities of calomel. It occurred to the writer, to witness several cases of rather a rare form of disease, whilst on duty in Arkansas: viz. gangrene. The subjects were all of the Cherokee, and half-breed Indians, who live in the vicinity of the fort. In regard to the mooted question, whether this affection is due in all cases to some abnormal action of the mercurial medicines, opportunity was afforded me of arriving at a satisfactory conclusion. The cases were all well marked, and occurred in children who had not taken medicine of any kind, until my attention was directed to them. In all these instances the disease came on without the slightest agency of mercurials. In one case, the affection extended to the alveolar process of the

upper-maxillary bone, which became necrosed, to an extent involving the site of three of the first teeth. This portion of the process was removed, the teeth having fallen out, and the disease in the soft parts, being arrested by blisters, and the free application of argent. nitrat., together with the use of detergent epithems, into which the Peruvian bark and the chlorides of lime and soda entered, the patient ultimately recovered.

JOSEPH J. B. WRIGHT, M. D.

Ass't Surgeon, U. S. Army.

Fort Armistead, E. Florida, March, 1841.

ART. II.—CASES OF MAMMARY ABSCESS, TREATED BY COMPRESSION.

To the Editor of the Medical Gazette.

Sir:—If you think the following article worthy of a place in your valuable periodical, its early insertion will oblige, sir,

Your most obedient servant,

JOSEPH BELL.

Barrhead, Oct. 16, 1841.

In the part of the Med. Gaz. for last month, there is a valuable extract from an article "On the use of Compression in the Treatment of Mammary Abscesses," by MM. Trousseau and Contour, and which appeared in the Journal des Connais. Méd.-Chirurgicales, Janvier 1841.

Having experienced very great benefit from the employment of compression in such cases, I have been induced to send the present communication for publication, in order to attract as much attention as possible to a means of cure which, though frequently brought under the notice of the profession, yet, so far as I can ascertain, is very seldom employed.

The editors of the Dublin Medical Press favoured me by publishing the

following case and remarks in their journal for 23d December, 1840.

May 12th, 1837. Mrs. C., ætat. 26 years, mother of two children. She is of ordinary stature, dark complexion, considerably emaciated. Complains of severe pain of left mamma, which is discharging large quantities of purulent matter from a small opening situated a little above the nipple, on the outer aspect of breast, which measures in circumference 26½ inches; on its superior aspect it measures 12 inches from base to nipple, and 9 inches

inferiorly.

It is very hard and painful, particularly at the upper part; the hardness is irregular and knotty; integuments over upper side red and tender; pain extends to axilla of same side, and down arm to fingers; some milk comes occasionally from nipple; the lacteal secretion is very scanty in right mamma; general health much impaired; has no appetite; tongue covered with a dirty white fur; thirst; skin hot and dry, but at night is covered with a profuse perspiration; pulse 120, feeble; can obtain no sleep from pain; bowels said to be regular; has been confined to bed nine weeks; suppuration commenced eight days after the birth of her youngest child, now three months old.

The abscess was opened by her medical attendant about a fortnight afterwards, from which time she has constantly applied linseed meal poultices,

according to his directions.

Applicat. fascia Mamm. sinistr. et habt. haust. Anodyn. h. s. ex Sol. Mur. Morph. gtt. xxx.; Tr. Hyos .Nig. 3j.; Aq. Cinnamomi, 3j. M.

14th.—Great relief of pain instantly followed application of the bandage. To-day she has no pains whatever; she looks more cheerful; has slept well for the last two nights; appetite improved; tongue cleaner; skin more natural; perspiration at night less; pulse 84; bowels regular; breast now measures only 17 inches in circumference, 6 inches from base to nipple superiorly, and 5 inferiorly; hardness much less, and discharge considerably decreased; redness of integuments gone.

Cont. fascia sed intermitt. haust. Anodyn.

18th.—Bandage came off on the night of 16th; I could not find it convenient to apply it till to-day. Breast more swollen and painful than on the 14th, but not near so much as it was previous to application of bandage; hardness increased, particularly in direction of left axilla; pulse 100; did not rest well last night; bowels costive.

Cont. fascia et habt. Ol. Ricin. Zj.

21st.—Breast has been always easier since the bandage was applied on the 18th. All pain is now gone; breast much reduced in size, it is now no larger than a small fist; discharge almost ceased; pulse 76; bowels freely opened by oil, and have been regular since.

Cont. fascia.

June 1st.—Breast is now well; general health good. Attendance discontinued.

Remarks.—The above case illustrates the beneficial effects that have resulted from compression in several cases of mammary abscess which have come under my observation. I have found it also exceedingly useful in cases of sinuses, which are frequently the sequelæ of mammary abscesses.

In one case the sinuses were of nine months' duration, and had resisted a great many applications, but were completely cured in ten days by com-

pression.

This treatment is by no means new, although I believe it is not generally known. I was not, however, led to adopt it from any authority, but from a preconceived notion. It afforded me great pleasure to observe it strongly recommended by a writer in the London Medical Gazette (vide vol. xxii. pp. 389, 419.) This gentleman seems to think that the treatment had not been brought under the notice of the profession previous to the appearance of his paper on the subject. We find, however, the practice highly lauded by M. Jules Cloquet, in a clinical lecture on abscesses of the mammæ delivered in 1837 (vide *La Presse Médicale*, 1837.) He mentions a case of six months' duration, "treated to no purpose by all other means, which yielded to compression as if by enchantment." I intended to have published the first case which I treated by bandaging, when it occurred, but delayed doing so in order to test its effects in other instances, in all of which I have found it successful. I use a common roller about nine yards long, which I apply round the chest and shoulders, so as to make gentle and uniform pressure on the affected breast; openings are made in the bandage to allow free exit to the discharge. The greatest care must be taken to have the bandage equally applied, as, if it be allowed to press more on one part than another, we will to a certainty not only aggravate, but cause the very affection we are endeavoring to combat. In order, therefore, to be successful, the roller must be carefully and judiciously applied.

Since the above was written, I have treated five cases of mammary abscess with the greatest success by compression. Two of these I will now quote: in these instances I employed strips of adhesive plaister, as recom-

mended by MM. Trousseau and Contour.

Case I.—Jan 6, 1841, Mrs. T——r, æt. 32 years, mother of four children. She is of full height, fine complexion, and of ordinary stature; a native of Ireland. Right mamma has suppurated, and is discharging, from an opening under nipple, a large quantity of purulent matter; breast much swollen, very painful, and hardened, particularly the under side, where the

skin is red and tender; pulse 100; tongue foul; thirst; sleeps very little;

is exceedingly restless; bowels costive.

Was delivered of a male child six weeks ago. Shortly after this her breast suppurated, and was opened by a surgeon on the 9th ult. She has been using poultices and ointments since.

Admov. fasc. Mamm. dextr. et habt. Ol. Ricini, 3j.; Tr. Hyosciam.

Nigr. 3 iss.; Aq. Cinnamom. 3jss. stat.

7th.—Slept some last night; oil operated twice; bandage has come off this morning; pulse 96; mamma much easier; swelling less.

Continuentur omnia.

10th.—The bandage, either from the restlessness or the carelessness of the patient, cannot be kept properly applied; mamma not improved, but

rather more painful and enlarged.

Strips of common adhesive plaster, about two inches broad, were applied round chest (somewhat in the manner used in the Bayntonian treatment of ulcers,) so as to make firm compression on breast, and, at the same time, to allow free passage to the discharge; a bandage was applied over the plaster in the usual manner.

12th.—Great improvement; pain, swelling, and discharge, greatly abated.

Pulse 76; sleeps well.

Continuentur.

22d.—Mamma quite well; is as small as that of left side; no hardening; no pain even caused by firm pressure with the hand; opening has been

healed since 16th. Attendance discontinued.

Case II.—March 22, 1841. Mrs. M'W ———, æt. 22 years. A tall delicate female, fair complexion, a native of the north of Scotland, on the 6th inst. was delivered of her first child. She had a good recovery until the 14th, when her right breast became inflamed, and despite the usual remedies to procure resolution, suppuration took place; it was incised yesterday, when several ounces of yellowish matter escaped. The abscess is deep seated, and the breast is very much enlarged, exceedingly painful, and is discharging profusely; pulse 100; pyrexia.

Utat. Compress. Mamm. dextr. c. Emplas. adhesiv. extens. et fascia, more

solito

24th.—Mamma doing well; pain, tumefaction, and hardening, rapidly

subsiding; health improving; feverishness gone.

27th.—Breast nearly well, but plaster has produced considerable irritation of the skin over which it was applied, causing abrasion in some places and much pain.

Intermit. Emplas. Adhesiv. sed. cont. fasc. et utat. Ungt. Simpl. 31st.—Marama quite well; tenderness of integuments almost gone.

Remarks.—In Mrs. T.'s case I was led to employ the plaster in consequence of being unable to keep the bandage properly applied to the breast. Finding in her case that it retained its place much better than a simple roller, I have used it in all the other instances which have occurred to me since. This is an advantage which it possesses over the common roller; but, on the other hand, as will be seen from M'W.'s case, very great irritation of the integuments was caused by the plaster. The same effect was produced in two other instances. In these, however, the evil was obviated by substituting a finer quality of plaster (for that in common use,) sold here under the name of Leicester plaster. Not the slightest irritation or uneasiness was caused by its application.

I have been so well pleased with the result, that I shall use it in future in

all such instances.

Perhaps it should be mentioned here, that Dr. M'Dowall, of Dublin, has invented an instrument for making compression in cases of mammary abscesses. In the Dublin Medical Press for Dec. 30, 1840, this gentleman in a note (referring to my communication which appeared in the previous number) states, "I have been in the habit of employing compression for

some years past in those cases (abscesses of the mammæ,) and the result has been such as to lead me to coincide with Mr. Bell in his views on the subject. I have invented an instrument for the purpose, which I have found to possess many advantages over either the bandage or the other modes of compression usually employed. This little instrument is extremely simple, being composed of two springs curved in a peculiar manner, and crossing each other at right angles, having a pad at each extremity. In adjusting it, the extremities of the springs are drawn asunder, and the breast being placed between them, are allowed to close gently upon it: the stays may then be closed over it, or, if the stays cannot be worn, a small bandage round the chest will do. When thus fixed, the instrument holds the breast firmly, as if it were grasped by the hand, and can be used with very little trouble or inconvenience to the patient.

Whether or not this invention of Dr. M'Dowall be calculated to effect the object in view I cannot say, as I have neither seen nor used the instrument. If, however, it make sufficiently firm and uniform compression on the breast, it certainly must be a preferable means of treatment to either bandage or

adhesive plaster.

In conclusion, I would observe, that from my experience of the use of compression in these cases, I can conscientiously join with MM. Trousseau, Contour, Dr. M'Dowall, and others, in strongly recommending the treatment to the profession, as most efficacious and speedy in its effects; alleviating much pain and suffering to the patient, and saving much time,

trouble, and annoyance to the medical attendant.

From what I have witnessed of the employment of adhesive plaster, I consider that its application should be preferred to the bandage, as the former is not so easily removed either by the carelessness or restlessness of the patient as the latter, which, however, is even itself of admirable utility in the treatment of this really painful and tedious affection to which the mammæ are so liable, particularly at a time when a due performance of their function is so much required.

BIBLIOGRAPHICAL NOTICES.

Introductory Lectures.

We have received various introductory lectures, which have appeared to us generally well adapted to the objects which their authors had in view,—that of placing before the student the character of particular departments of the science; the mode in which the Professors design to teach it, with the claims it has on the attention of the student; and an occasional digression on the condition and prospects of the School to which they are respectively attached.

Of the lectures before us, three were delivered in the Jefferson Medical

College, by Professors Bache, Meigs, and Dunglison.3

The Lecture of Professor Bache is strictly introductory to his subject,

¹ Introductory Lecture to the course of Chemistry, delivered in Jefferson Medical College, Nov. 3, 1841, by Franklin Bache, M. D., &c. &c., 8vo. pp. 16, Philad. 1841.

Jefferson Medical College, Nov. 1, 1841, 8vo. pp. 24, Philad. 1841.

² Introductory Lecture to a course of Obstetrics, delivered in Jefferson Medical College, Nov. 4, 1641, by Charles D. Meigs, M. D., &c. &c. 8vo. pp. 18, Philad. 1841.

³ An Introductory Lecture to the course of Institutes of Medicine, &c., delivered in

and contains an able and interesting sketch of the importance of the study of Chemistry, and the advantages that have resulted from its cultivation, not only to medicine, but to the useful arts and to science in general. We extract that portion of it which treats of its application to Medicine. It

will give an idea of Professor Bache's matter and manner.

"It is pharmaceutical and medical chemistry which it is my duty more particularly to teach in this College. And here, gentlemen, let me stop to inquire, is chemistry, in its applications to medicine and pharmacy, worthy of your regard? This is an important preliminary question; for if you follow the ensuing course under the erroneous impression that you can be respectable physicians without being chemists, your attention will flag, and the knowledge which you will derive from my lectures will be insignificant; but if I can convince you in the outset that an intimate connection subsists between chemical and medical science, and that a knowledge of chemistry is an indispensable prerequisite to the successful prosecution of your profession, I shall hope to secure your undivided attention.

"The applications of chemistry to medicine will now be briefly noticed;

and first, of its application to physiology.

"Although it has been conceded that vital phenomena must be considered as regulated by a distinct set of laws, yet it does not follow that they cannot be elucidated by chemistry. Vital phenomena are the result of the reaction of organic particles; chemical phenomena, of inorganic ones. Hence physiology and chemistry agree in studying molecular attractions, occurring either within or without the precincts of vitality. As the anatomist separates the grosser parts, and detects differences in structure; so the chemist executes a more minute dissection, by demonstrating the chemical nature of the different animal solids and fluids. Thus it is that the science of physiology is based almost entirely upon the facts furnished by anatomical and chemical research.

"The subject of alimentary substances requires for its elucidation the aid of chemistry. By its means, the different kinds of food are analyzed, whether derived from the animal or vegetable kingdom, the peculiarities of each noted, and the relation which these peculiarities may bear to their nutritive power. In experiments relating to the vital process of absorption, the physiologist can hardly proceed a single step without the aid of chemical knowledge. The tracing of different substances, purposely introduced into the stomach to determine whether they afterwards pass into the blood and secretions, can only be performed by chemical tests, capable of detecting minute portions of matter, which elude the observation of the senses.

"The process of digestion cannot be successfully studied without the aid of chemistry. It is impossible to give an account of what is known in relation to this subject without constantly recurring to chemical principles. The gastric juice has been examined by a number of able chemists; still much remains obscure and unexplained. Its power, out of the stomach, to dissolve various alimentary substances, was demonstrated by Spallanzani and others; but for the production of true digestion, the nervous influence ap-

pears to be necessary.

"Of all the functions of the body, none have received more important elucidations from chemistry than that of respiration. Here true chemical changes take place, as is proved by a comparative analysis of the air taken into the lungs, and that expired. The chief product is carbonic acid, and hence it is fair to infer that charcoal undergoes a change in the lungs, similar to that which it suffers when it burns in the open air. Here, then, is a source of a large amount of heat; and, no doubt, the temperature of the body is mainly kept up by the function of respiration.

"If chemical principles alone cannot explain the function of respiration, it does not, therefore, follow that the changes which the air actually undergoes are the less important to be known; since a knowledge of these changes

may lead to the enlargement of our resources in combating disease. It has been found that the formation of carbonic acid, in respiration, is diminished by sleep, by the use of spirituous and fermented liquors, and by the constitutional effects of mercury; while it is increased by muscular exertion and by the exhilarating passions. In what comparative quantities this acid may be generated in different diseases, no extensive series of experiments have yet been instituted to determine; but it cannot be deemed an unreasonable conjecture, that, in disease, important differences may be found to obtain in the products of the respiratory organs.

"Another important function is the production of animal heat, which cannot be successfully studied without a due knowledge of the properties of caloric, a subject which belongs to chemistry. Here is required of the physiologist a clear idea of quantity of heat, as contradistinguished from temperature; of changes of state of aggregation produced by caloric; and of the circumstances under which it is absorbed and given out. In relation to the constant liberation of caloric in the animal economy, which maintains a nearly uniform temperature, it may be said that one general principle prevails; namely, that, when, in any vital action, liquids are converted into

solids, heat is evolved.

"The mysteries of the nervous system are more likely to be explained by studying the imponderable fluids than in any other way. Mere volition causes muscular motion; and the seat of exertion seems to be in the muscle moved; but, in fact, its source is either in the brain or spinal marrow. That the exertion is thence propagated, is proved by the effect of cutting a small fibre, called a nerve, which forms the channel of communication between the brain or marrow and the muscle; whereupon the will becomes utterly powerless. The instantaneous power of volition in propagating an effect through the channel of a nerve, as it were through a conductor, naturally suggests the hypothesis of the passage of a fluid; and, from the analogy of the effect to electrical and galvanic phenomena, leads at once to the plausible conjecture that the fluid in question is some form of electricity or galvanism. What sustains this view are the well known facts that a muscle, recently separated from an animal, suffers violent contractions when a galvanic current is passed through it; and that nature herself has endowed certain animals having the nervous system largely developed, as the torpedo and other electrical fishes, with the power of giving electrical shocks. Besides, the experiments of Dr. Wilson Philip prove that digestion, and other functions dependent on nervous influence, after having been arrested by the division of the nerve going to the organ, may be restored by passing a current of the galvanic fluid from one cut extremity to the other.

"But it is not merely the healthy economy, whose functions are elucidated by chemistry. Many subjects, connected with pathology, receive important aid. In the treatment of the morbid effect of poisons, chemistry furnishes almost our only resource. By suggesting what substances, by chemical affinity, will unite with the poison, so as to render it inert, or comparatively harmless, we are instructed in the knowledge of counter-poisons. Thus, for preparations of anatomy, the best antidote is a decoction of some astringent vegetable; for nitrate of silver, common salt; for baryta and lead, solutions of Epsom or Glauber's salt; for oxalic acid, chalk or magnesia; for corrosive sublimate, the white of eggs; and for arsenic, the

hydrated sesquioxide of iron.

"In calculous disorders, the physician cannot determine the proper curative measures without the aid of chemistry. Here it is necessary to know the chemical composition of the urine in health and disease, and to possess accurate analyses of the different kinds of gravel and urinary calculi. Without this knowledge, the practitioner is unable to discriminate between the different diseases of the kidneys, or to apply the appropriate remedies, which, for the most part, rest upon chemical principles for their efficacy.

"But it is not only physiology and pathology that are indebted to chemistry. The department of Materia Medica, also, is under great obligations to it. Here we find a great number of remedies which are the products of the laboratory. To prove this, it is only necessary to remind you of the long catalogue of acids, alkalies and salts, furnished by chemistry to the Materia Medica, and to allude to the inestimable value of the native organic alkalies, extracted from some of our most important vegetable remedies. Of these, I need merely name to you quina and morphia, to call up the recollection of disease arrested as if by a charm, of pain assuaged, and of valuable lives, under the blessing of Providence, snatched from impending death.

"The importance of chemistry as a means of detecting adulterations is so obvious, as scarcely to need enforcement by argument. Let it not be said, however, that, important as this knowledge may be, its possession is valuable only to the apothecary. For, if it be essential that a workman should be able to judge of his tools; how much more important must it be to the physician to possess the necessary knowledge to determine the quality of his medicines, so as to assure himself of their uniform strength, and

freedom from injurious impurity.

"Chemistry is connected with one branch of medical jurisprudence; namely, that of searching for deleterious agents in cases of suspected poisoning. Here the chemist comes to our aid, and, by examining the substance supposed to contain the poison by means of appropriate reagents, determines the question with an accuracy and certainty which are truly surprising. To perform these delicate researches, medical practitioners, in this country, are generally called on; and, unless they possess a knowledge of the chemical qualities of the more important poisons, they cannot conduct the necessary examinations, or give the requisite evidence in a court of justice.

"I have thus, gentlemen, presented to you a sketch of the more important applications of chemistry to medicine. I trust I have made out a case, and convinced you of the intimate connection between the two sciences; a connection which cannot be disregarded even by the routine practitioner,

much less by the scientific physician."

The lecture of Professor Bache was the first of the series in which he is at present so successfully engaged as a Professor in the Jefferson Medical

College, and the same may be said of the

Lecture of Professor Meigs, who commences with a brief allusion to the pretensions, by which he hopes to gain a share of the confidence of his students as a teacher. In treating of his own career, he thus alludes to the teachers under whom he studied his profession, after having paid a feeling tribute to the gentleman, Dr. Fendall, of Augusta, Georgia, under whom he passed his early pupilage.

"In the course of prosecuting my medical studies I had the happiness, gentlemen, to hear the last course of lectures delivered by the American Sydenham. Why the American Sydenham?—one greater than Sydenham—I mean the late Benjamin Rush; of whom it may be said with truth, that he

was medicorum Americanorum omnium, facile facile princeps.

"The eloquent accents of that venerable man seem to fall upon my ears even now, when I turn back my thoughts to those young days filled with aspiring hopes and fond anticipations of success and professional distinction. I see him now, surrounded by 500 young men, my fellow students and fellow citizens from every part of our wide-spread country, each one gazing intently upon that reverend countenance, wrinkled with age it is true, but still ruddy with temperance, and radiant with the smile which showed how charming is divine philosophy that sat enthroned upon a brow of the rarest benignity and beauty. I see that good old man erect himself in his chair, upon which, on account of his great age, he was accustomed to sit at his

lecture. He puts back his glasses on his forehead—he rises from his seat, and leans with his aged hands upon the desk—he looks abroad over the whole mass of faces and says, "gentlemen, silence! I rise from my seat for a special object—I desire you all to remember, that upon this day, I stood up before you while endeavouring to impress upon your minds the necessity of opposing the very beginnings of disease—In order that I might pronounce these two words in your ears—Obsta principis, Obsta principis." Those words sunk ineffaceably into every man's memory—you hear me repeat them at a distance of twenty-nine years; and it was by such methods as this—by some graceful wave of the hand, by some forcible gesture of the body, by some most apposite illustration, that he endeavoured always to impress deep into the plastic material before him, that signet of his intellectual power whose traces are still visible in the mens medica of these United States—which I firmly believe, is extending its nature and kind, as a good

leaven that leaveneth the whole lump, beyond the Atlantic wave. "There, too, I heard the lesson of the fiery Barton. He had a head that seemed chiseled as by a sculptor, so firm and unwavering was it in its resolute expression. He came there scrupulously dressed, and exactly punctual, to pour the rich and fertilising stream of his discourse, while his face often became the express image of his sentiment, as he felt the warm and generous glow of Linnæus' zeal at the prospect or the hope of some new medicinal herb. When he told us of opium, - of its talismanic properties, and its baleful powers, the tears coursed down his sympathetic cheeks and ours, as as he related the history of the immortal Brown, his early friend-his meteoric fame--his shining intelligence-his dark, and dreary, and dismal fall and death. And then he would gather himself up again, to criticise the doctrines of Cullen, and Murray, and many others, and to urge, urge, urge upon us, the results of his own experience in the therapeutic properties of the preparations of lead, or the nature of American medicines; whilst it was a delight and an honour to sit at his feet and listen, as he poured his lay, almost poetical, over the dry and barren fields of the Materia Medica.

"But there was a Gamaliel there at whose feet one might be deemed happy

to sit even all the day long.

"Yes, it was a happiness to sit there, and catch the droppings of that rich fountain of precious knowledge-knowledge that man prays for when his friends, his wife, his child, or when he himself lies prostrate under the assault of an imminent death, or an insupportable anguish. That knowledge that then has no limit to its value, which is impayable, and which man can neither beg nor borrow nor buy; which he can only earn. It is like some bright jewel in a deep and darkling mine. There it lies deep, deep, hidden, low, the prize of patient toil and protracted assiduity: a thousand and a thousand strokes of the axe must win the way to that precious gem; tons and tons of useless ore are to be turned aside before you seize it, all radiant as it is, and glowing with its own pure and proper light: but you seize it at last, and wear it on your brow, where it shines broader than a phylactery, more resplendent than Barbaric gems, or pearls of Ormus or of Ind. It is science—it is sagacity—it is judgment—it is charity—it is love to man—of which that priceless jewel is combined. None win it but the worthy. Palmam qui meruit ferat, was the motto of that great teacher, for such was the man who wore that precious gem, our Gamaliel in that by-gone day.

"Look at that great amphitheatre, crowded to the outermost ring. No stamping of noisy feet indicated the impatience of a crowd for the arrival of a tardy master. No—at the point of time he entered the area. He came, with that cold eye, which you could neither bear nor forbear—its light was different from that of common men. He came with that face of pentelic marble—that hair powdered and dressed in the most finished manner—that blue coat with its metal buttons, closed on his breast on account of his delicate health. There he stood silent for a moment. You would as soon think to cheer a statue, or applaud at the marble features of a corpse, as to

have raised your voices in praise or blame where Dr. Physick stood. He opened his mouth after a cold salute, and from thence proceeded choice words of wisdom, which we were too anxious to gather up in our garners of note books, to stop for a moment to see what other men were doing, or imagine what they were thinking, for so great was our trust in what he should say, that we received it as a gospel; and truth to speak, no word of folly or frolic did I ever hear proceeding from the lips of that great man, who deemed the business of dealing with men's lives and teaching others to do so, one of such solemn and dreadful import that there was no place in it for glee or laughter; and so he acted, and so he always looked—he lived so, and he died in that belief. Dr. Physick was a very great man, gentlemen: You had an indefeasible tendency to stand uncovered in his presence. There was a spotless purity in his character, so that he walked as in a bright cloud of moral truth and beauty. Apollo, the god of physicians, seemed to have inspired the nobleness of his countenance, and to have imparted somewhat of the mens divina to his whole moral constitution. You and I may live long, gentlemen, yea, and our children after us, before so rare a combination of great and admirable qualities shall again conspire to produce the perfect pattern and model of a surgeon and physician.

"But why have I not yet spoken of him, the beloved of the class! By what epithets shall I attempt to particularize those singular good qualities, which, by a happy conspiration, united to make up the character of that good old man—the idol, the darling of the classes? Do you not see that powdered head of his, with its well-adjusted locks and queue? Dr. Wistar enters the area, followed by a cloud of witnesses, bowing often, and rubbing his hands, and with a face on which sat a pleased and yet bashful expression—a mixture of emotions which gave it a most peculiar character,—chiefly delightful, however. He came there amidst sounds of greeting, and the wreathed smiles and looks of exchanged congratulations of the superimposed circles. Men witnessed his entrance as they witness the completeness of preparation for some great feast; there was a satisfied feeling already, like that with which a company inhale the rich perfumes and

odours of a feast that is set.

"He lifted his hand, and in a very short, quick expression, he said, Gentlemen! Henceforth all was still—a profound silence, broken only by the arrival of some tardy student, which was regarded as a wrong done to the whole company, and a rudeness to be visited by frowns, or even more decided marks of disapprobation, particularly if the white-haired teacher should stop in his career to look around the sky-parlours. Ah, gentlemen, those were the halcyon days of medical instruction!—days ever to be remembered. But those good men are gone off the stage of the world. The eloquent voice of Rush is silent where he lies yonder in his grave; and Wistar sleeps among the undistinguished dead of his sect, in that ground to which I followed his remains—one of the vast concourse of his fellow-citizens, treading with mournful steps, and slowly, the way taken by the dead body of a public benefactor. I felt that day—grieved as I was to part forever with one who had gained my whole esteem and reverence—that I was honoured in being a physician, for my profession was exalted and honoured in his life, and by the public testimonials to his worth and many virtues rendered at his death.

"There, too,—and why not place him in the front rank of the men of that age?—there, too, was the beautiful Dorsey, with a face as bright as the morning, and open as noon-day. An ambition of the highest reach urged him onward in a career that was nobly run, and would have carried off the highest prize, had he been spared to the country. Conquering by the most arduous struggles certain natural impediments of his elocution, he had just attained the perfect victory. He had just stepped on a lofty stage of action, when the angel of death struck him down too, that he might, though young, belong to that great age of American medicine. He came not down to our times, but was gathered to his brethren and his like. He sleeps here among

them. The American Sir Astley, is a title which he deserved, not more by the graces of a most ornate mind and manners, than by the great surgical

skill and renown which he so early vindicated to himself.

"But I have not spoken of my good friend, Dr. James—Thomas Chalkley James, Professor of Midwifery in that day—a member of the Society of Friends,—a good man. There are many persons here, I suppose, who remember the quiet, calm, gentle, modest style with which he came out into the rotunda to meet us in the afternoons. He brought there written lectures filled with learning, ransacked from the whole stores of that time, and arrayed for us into an order and a show that made them always delightful,—garnished, as they were, with apposite classical citations, whether from the ancient or modern authors. He brought, too, the results of a great experience in practice. He brought there, also, his modesty, which never left him from his earliest youth, and which frequently sent the mantling blood over cheeks and brow to testify that he had the deepest sense of the delicacy of the task assigned to him—that of exposing to hundreds of young men, those trembling secrets of the lying-in chamber, which he had blushed to learn, and which he more readily blushed to tell. Take him all-in-all, and you shall search long and far before you shall find a more honourable, upright gentlemen—a riper scholar—a better teacher, or a better man.

"Such were the days, and such the men, when I studied medicine here, near thirty years ago, in the venerable University of Pennsylvania." p. 8.

In the course of his lecture, Professor Meigs well describes the difficulties and responsibilities that beset the practitioner of the important department over which he presides in the Jefferson Medical College; but, at the same time, holds out ample encouragement to the student, who determines to make himself master of the subject, and to practise it understandingly.

Of the lecture of Professor Dunglison we can obviously speak only in relation to its objects, not of the mode in which it is executed. As it devolved upon him to introduce his new colleagues, he necessarily speaks of the organisation of the school; and of its prospects; and it may be added, that the increased number of students, now in attendance, have proved the correctness of his favourable anticipations. The catalogue of students will show a considerable addition—and this notwithstanding the death of one colleague during the last session, and the transference of the services of two others to the new university at New York. How high then must be the prospects of the school for the future, and especially when the unusual number of first course students is borne in mind, all of whom will probably return to its halls! Last year, the catalogue of students contained the names of 163. This year it will not fall much, if any, short of 200.

We extract from Professor Dunglison's lecture the following description of the present condition of medical science, compared with that which it

presented at no distant period.

"It has always been a pleasing topic with me, and it is germane to the subject of this discourse to advert to a few (and our time will admit of a few only) of the improvements that so eminently distinguish the middle or an approach to the middle of the present century, from the same period, and even from the termination of the last.

"Commencing with anatomy, which is the basis, but only the basis of the other departments of the science, we find it, instead of being limited to a knowledge of the organs exhibited on dissection, as it was in those days, now embracing an acquaintance with the absolute and relative situation of the various organs, or what has been termed Surgical or Topographical

Anatomy; depicting the relations which the parts bear to surgery and pathology; unravelling their intimate texture and arrangement, their correlations, the origin and formation of the human body, the character of its numerous constituents, and the changes that supervene in the different stages of existence—constituting what has been termed General Anatomy; and investigating the relative importance of organs; their presence or absence in the animal series; and from such investigation establishing great general analogies and fundamental laws, that may be applicable to all,—or what has been termed Philosophical or Transcendental Anatomy.

formed, even from the cytoblast or 'germinal cell,' have been a subject of interesting study with the more recent anatomists; and the works, that are now issued from the press on this subject, show a degree of enlightened microscopic research unknown except in very recent periods. The first part of the Elements of Physiology of Wagner exhibits a depth of investigation on this subject, and on the development of the new being, which cannot but astonish those who are unacquainted with the profound labours of modern embryologists. These, however, will form subjects of contemplation for you hereafter.

"Of comparatively recent origin, too, is Pathological Anatomy, one of the greatest aids to diagnosis or to the knowledge of disease, but still an aid only; forming, indeed, but a link in the chain of evidence, and very often exhibiting to us the result, rather than the nature, of the diseased action; yet worthy of all attention from him who would desire to know his profes-

sion in the manner in which it ought to be known.

"When we pass from Anatomy to Physiology, how manifest are the changes that have occurred in the period we have chosen for our survey! Fifty or a hundred years ago, although a bright light was here and there apparent, they were few and far between, and served but little more than to render the darkness visible. Formerly, dead anatomy was esteemed the sole foundation of medical study. Since the time of Haller, a knowledge of the living body—the Anatome animata of that illustrious physiologist, physician, poet, philosopher and mathematician, for he was all—has been added as an essential prerequisite; and no one now pretends to comprehend the laws and phenomena of disease, until he has endeavoured to fathom the laws and phenomena of life. It is obvious, indeed, that before an altered condition of the organs and tissues can be understood, we must be familiar with the healthy condition that preceded it. Physiology is a modern science. The medical press teems with new productions of value. Germany led the way; France followed in her footsteps; and the nations of the Anglo Saxon race succeeded; all vieing with each other for the advancement of this important branch of the science.

"We hear no longer of such questions as were propounded by the learned Sir Thomas Browne, whether, for example, a woman could be impregnated by bathing in the water that had been used by a man a short time previously; and if we occasionally meet with instances like those afforded by such men as Richerand—the most fanciful, by the way, of all modern physiologists—who considers that the reason why the languages of northern Europe contain more consonants than those of the south, is, that the mouth may not be too widely opened, and thus the cold air be prevented from getting, in too large quantities, into the stomach,—we mark them down as mere individualisms, which have no influence on the steady forward course of the

science

"Surgery has proceeded onwards in the career of improvement. Operations have been devised within the last fifty years, which must be the source of admiration to the mere philanthropist. Within the last few years, she seems to have had her era of signal inventions, if they may be so termed. The operation of crushing the stone in the bladder, and that for the division

of tendons in cases of deformity, would of themselves signalise the period

at which they were introduced.

"It is strange, gentlemen, that the latter operation had not attracted extensively the attention of surgeons until deep in the second quarter of the nineteenth century. Of old, a dread was entertained of dividing all fibrous structures, and it was considered hazardous to incise the bladder in cases of lithotomy: that dread soon passed away; yet apprehension, until within the last few years, appears to have been entertained of serious inconvenience from the division of tendons. It is now shown to be a harmless operation. The results have, indeed, been triumphant; deformities of the most distressing character have been rectified, and much mental misery has been removed. Yet the enlightened and humane surgeon is not led to operate more frequently than formerly, or to make constant theatrical displays of his dexterity, with the view of obtaining same to himself. One of the most important improvements in modern times has been the conviction, that mutilation is often unnecessary, where, in former periods, recourse to the knife would have been regarded as indispensable. Since the introduction of rail-roads, a new form of accident has become common, and has greatly augmented the necessity for amputation: yet this is never had recourse to unless, after full and mature deliberation, all attempts to save the limb are considered fruitless. The skilful and benevolent surgeon has more gratification in saving a single limb that has been doomed to the knife, than in his most brilliant operations.

"As a branch of surgery, and likewise of medicine, Obstetrics has kept pace with the parent stems; the practical part has been simplified in its means and appliances; and the treatment of the pregnant and parturient female has been so much improved, both in the way of hygiène and therapeutics, that the value of life has been surprisingly increased amongst the

most interesting part of creation.

"Chemistry has experienced such changes in the interval I have selected as to exhibit scarcely any of its former characters. Its nomenclature, although necessarily unfixed in consequence of the improved and improving acquaintance with the constitution of chemical compounds, has wrought an important change in the science; and its followers are daily adding to the rich stock of facts and principles which it possesses. It is an interesting and important department of medical study, and merits your close attention. We are every day looking more and more to Chemistry to explain certain physiological and pathological phenomena in our own bodies. Without it, indeed, we could not readily account for several pathological aberrations, the depositions that take place from the urine, for example, with the appropriate methods for preventing them. The action of antacids in obviating acidity of the stomach, and of disinfectants in destroying contagious and other miasmata or effluvia, look likewise for their elucidation to Chemistry. The whole subject of Toxicology, in its relation to tests and antidotes, belongs to Chemistry; and, in modern times, we are indebted to it for most valued gifts to Therapeutics, which infuse certainty into our prescriptions in some cases, and in others furnish us with articles adapted for the better combating of disease. I need but specify the active principles of the bark, of opium, and of the nux vomica; and the simple body-iodine---which we administer with so much success in many diseases.

"Our Materia Medica, or catalogue of therapeutical agents, has received rich acquisitions in modern times. It has gained some energetic articles, and it has lost some of the more inert. It can still spare many that are retained on insufficient titles, and the day must come when it will be greatly reduced. Already the testimony adduced in favour of many of the agents is admitted to be slender and fallacious: yet we are loth to discard them, and

they hold their place in consequence of their former reputation.

"A comparison of the excellent Dispensatory of my friends, Professors Wood and Bache, with that of Quincy, so long the standard, will exhibit the signal difference between the condition of Pharmacology now, and at a

former period; and I trust, that the revised Pharmacopæia of the United States, assigned to the same able hands, with the assistance of the Colleges of Pharmacy of this city and elsewhere, and any feeble aid that I may be able to render, will be an additional evidence of the advanced condition of

the same important department of medical science among us.

"Lastly; the department of Medical Practice-hygienical and therapeutical—if not signalised by any extraordinary discovery, has proceeded steadily onwards; and although we may have difficulty in tracing its progress from year to year, the change between the middle of the last century and the present period is great and impressive. It is not easy for us to prove statistically the improvement that has taken place in our mode of treating disease; yet it has been striking. By the assistance of pathological anatomy -by the introduction of auscultation, and the other physical signs, for which the name of Laënnec will flourish illustriously in the annals of our science —and by the better system of observation, and of tracing effects to their causes, that now prevails—we are enabled to diagnosticate disease with greater certainty, and, knowing the disease, to adapt our therapeutical agents accordingly.

"It would be impracticable for me, in the course of this lecture, to bring forward instances in proof of this position, which will be ably and amply confirmed by every lecture of my friend and colleague, the Professor of the Theory and Practice of Medicine. Could one of the worthies of our profession, who flourished in the middle of the last century, be permitted to revisit the earth, how strange would everything appear around him! Although, like the venerable patriarchs of all ages, he might sigh for 'the good old times,' and doubt that all the changes were improvements, he would find it necessary to renounce his ancient ideas, or consent to be honoured merely as a Rip Van Winkle relic of antiquity, in the very place in which he had been formerly looked upon as an oracle." p. 22.

We have received two other introductory lectures—one from Professor Bartlett, of Transylvania University, and another from Professor Hamilton, of Geneva College, N. Y. Both of them are very creditable to their authors. That of Professor Bartlett exhibits considerable thought, usually in the right direction, and generally well expressed. The author is a strong supporter of the school of observation, as all must be: but he overrates, we think, the acquisitions to the science from the labours of its disciples. Observers have always existed, and in all ages have been pertinaciously wedded to the results of their experience; and if we examine philosophically the records of the past—and we would not entirely discard those of the present day—we find, that the science has suffered more from observations, as they have been termed, or facts, than from theories, idle as these have often been. The following extract from Dr. Bartlett, which renders merited credit to the zeal of several of the younger members of the profession in this country, refers to solutions by them of problems, which are still disputed; many of the modern British writers by no means admitting the conclusions as applicable to their own fevers, that have been drawn from the observation of a few of them on this side of the Atlantic.

"I wish to remark further, that there has never been a time when we had as good cause for self-congratulation as we now have. In the course of this lecture I have expressed myself freely respecting the short comings and the vices of medical philosophy, and the disastrous results of these upon practical medicine. I have done this from an honest conviction of its truth, and from a strong feeling that in no other way could I do as much service to you. "Not less strong than this feeling in regard to the errors of the past, and even of the present, is my conviction of the certain progress and improvement of medicine. The prospect of the future, which presents itself to my contemplation, has more in it of vision than of faith. I have an undoubting confidence, resting alike on the experience of the past and on the essential nature of things, that our science and art are destined to go on in a course of great and almost indefinite advancement. Never before, within the same period of time, during the existence of the science, has it made such rapid and sure progress as for the last forty years. Within the last twenty years, especially, have the best minds in the profession been devoting themselves, with a singleness of purpose, with a patient industry, with an untiring zeal, and with a lofty and disinterested love of truth, before unequalled—before unknown—to a thorough, comprehensive study of disease. Never before has such searching inquisition been made into the phenomena and relations

of morbid action; and never before with such triumphant results.

"Every where the time is full of the brightest promise, and especially so is it here. Some of the most common, the most violent, and of course the most important and interesting forms of disease, as they occur in and are modified by our own climate and position, are yet to be fully studied and compared with their cognate and analogous forms abroad. And this can only be done in the spirit of that philosophy, which it has been the object of this lecture to define. Guided by this philosophy, I cannot conceive a richer field than that which is spread out before the American Physician. Already have there entered upon it ardent and active labourers, not a few, thoroughly furnished to their work. They are taking possession of its treasures:—they are writing their names on its history:—they are gathering garlands for their temples, which shall never wither away. Already have some of our young men, even, solved important problems in pathology, which had foiled the skill, and eluded the dexterity of our British brethren. Happy and fully satisfied shall I be, if I can, even in the slightest degree, be instrumental, in preparing you, either by infusing into your minds the right spirit, or furnishing means to enable you to go forth and occupy, worthily, the rich inheritance which awaits you.

"As in the direction of all our other relationships—social, moral, economical—the future opens itself before us in two paths, so does it here. One of them, the great and common highway of False Philosophy, is broad, we'll trodden, and shows itself fair to the eye, at its entrance. Flowers blossom along its borders: syren voices sing the safety and the delights of its course—the beauty of the scenery through which it runs, and the grandeur of the Temple of Truth to which it leads. Multitudes have thus been led, and multitudes are still led to enter upon this enchanted ground. But the pathway, so pleasant at its beginning, soon loses itself in uncertain wanderings and in a constantly thickening obscurity. The melody of the morning outset is soon changed to dissonance. Discordant and jarring voices, issuing from the thousand and one belligerent and angry schools, into which the travellers are divided, make an utter Babel of the place. Every leader of every sect proclaims his own little rush light—kindled at the lantern of some will-o'-the-wisp—and glimmering feebly in the fog—to be the true sun of the medical world; and his own crooked and misty path of the confused labyrinth, in whose mazes of cloud and quagmire they all

wander, to be the only sure and safe road to the truth.

¹ Dr. Gerhard, of Philadelphia, was the first to point out the difference, both in symptoms and pathology, between the true British typhus, and the common continued typhoid fever of the United States. In the whole range of practical medicine, there is no single circumstance, which, both to the Pritish and American practitioner, has been the occasion of so much obscurity and confusion, as the confounding of these two diseases, resembling each other in many respects, but still differing from each other, as clearly and as distinctly as measles and scarlatina.

"The other is the pathway of True Philosophy—in our own science, as in all the rest-narrow and rugged at its entrance, dimly lighted, it may be, and filled with obstacles which it is difficult to surmount. But nevertheless. fear not, and be wise in your choice. This pathway shall widen as you proceed, and every successive step, in your onward and upward career, shall be surer and easier than the last. The light shall brighten as you go on, the earth shall grow firmer under your feet, the heavens shall spread bluer and broader over your heads. The horizon shall widen around you, and every hour shall bring within the scope of your vision objects of new and boundless interest. You will find yourselves, too, in a small, perhaps, but a glorious company, led on, in the far distance, with his flowing beard, and his venerable form, by the old Physician of Cos. It is the path which was trodden by the Sydenhams, the Hallers, the Hunters, the Bichats. It is the path which led Harvey to the most brilliant achievement in the annals of physiological science. It is the path which led the more fortunate Jenner to that discovery, which has embalmed his name in the gratitude and the love of countries, and of all times. It is the path which led Newton--clarum et venerabile nomen---up, up, to that loftiest pinnacle ever reached by uninspired humanity, crowned with light of ineffable brightness, where the veil, which, from the creation of the world, had hung before the universe, hiding its wonder and its mystery, was rent, and man was suffered to look, for the first time, out upon the beauty, the majesty, the unchangeable order, of the handiwork of God. Into this path, and not into the other, be it our effort and our happiness to enter!"

We have not space to say more than that the introductory lecture of Professor Hamilton contains excellent advice to his young hearers.

MISCELLANEOUS NOTICE.

[We cheerfully comply with the request of Dr. Carpenter in inserting and procuring the insertion of the enclosed correspondence. The request of an aggrieved professional brother, and of one whose reputation is so much connected with the cause of true science, is to us in the light of a command. Dr. Carpenter has been charged with the sins of another. It is but right that all should aid in the disssemination of his assertions of innocence.]

Copy of a Letter from Dr. W. B. Carpenter of Bristol (England,) to Professor Dunglison of Philadelphia, in reference to certain charges made against the former, by Dr. Martin Paine, Professor of the Institutes of Medicine in the University of New York, in his "Examination of Reviews, &c."

BRISTOL, Nov. 16, 1841.

My Dear Sir,—Having just received from Dr. Paine a copy of his "Examination" of the Critique on his Medical and Physiological Commentaries, which appeared in the April Number of the British and Foreign Medical Review, I find, to my great surprise, that Dr. P. has thought himself justified,—not only in singling me out as the Author of it, and in animadverting upon what he considers to be its misrepresentations, as if they were mine (thereby attempting to make that a matter of personal discussion between us, for which the Editor of the Review holds himself responsible,)—but also in fixing upon me a charge of literary plagiarism, which is calculated, if I allow it to remain uncontradicted, to do great injury to my personal as well as to my scientific character.

Before going further, I must express my astonishment that any person holding the position which Dr. Paine occupies, should commit himself to so grave a charge against an individual, to whose discredit he knows

nothing, upon evidence so flimsy as that which he adduces;—especially as he must have been aware that, from the distance of the accused party, his defence could not be laid before the public, until many months should have elapsed since its publication, during which time, an injurious, impression would have been formed not easily to be eradicated. And I think that I have further a just right to complain, that Dr. Paine's inculpation of me is not confined to surmise; but that, after he has proved his point to his own satisfaction, he has taken it for granted, and, throughout the latter part of his pamphlet, has continually coupled my name with the accusation of gross

plagiary.

The evidence which Dr. P. adduces in support of the charge, is briefly the following:-Having made up his mind, from certain coincidences of opinion and of expression, between the Critique on his Commentaries, and my Principles of Physiology, that I must be the writer of the former, he has searched in previous numbers of the same Review for articles written, as he imagines, by the same author. In this search he thinks himself assisted by references occasionally made from one article to another,—the complete fallacy of which kind of evidence is exposed in Dr. Forbes's letter. Upon the same evidence, I must have been the Reviewer of my own work; and I am not certain, whether Dr. P. does not mean to insinuate as much.—Any person, however, who carefully reads that Review, which I did not see until it was in print, may find abundant evidence of the absurdity of such an idea. With respect to the other chief source of Dr. P.'s evidence, -coincidence in opinion, and in the mode of expressing it,-I will only say that Dr. P. shows great ignorance of the state of physiological science in this country, if he imagines that the opinions expressed in my Principles, on the subjects alluded to, are at all peculiar to myself; and it is very natural that one writer should almost unconsciously adopt the phraseology of another who has recently treated of the same questions, when desiring to express the same ideas.

So much for the evidence on which Dr. P.'s charge is founded. I have thus examined it, merely to show how unjustifiable it was in Dr. P. to charge me with the perpetration of a gross literary theft, upon no better grounds. The charge itself,—that in a review of Hunter on the Blood, in a former volume of the same Journal, I unceremoniously adapted certain passages from Dr. Channing's Essay on Milton, to a very different purpose,—is easily disposed of. I did not write that review. To those who know me, my simple denial would, I am confident, be amply sufficient; but for the satisfaction of Dr. Paine, who, in his ignorance of my character, may think me as capable of asserting a falsehood, as of stealing a paragraph, I enclose a note from Dr. Forbes confirmatory of my assertion.

Dr. Paine considers that his identification of me with the plagiarist is triumphantly confirmed, by a correspondence which he imagines that he has detected, between certain passages in my Principles of Physiology, and others which he has selected from Dr. Channing's Sermons. I am myself completely at a loss to discover this correspondence; and my friends here find it equally difficult. The falsity of this charge is as easily proved as that of the other; for I have never (I speak it almost with shame) read the Sermons from which Dr. P. quotes. The ideas which I have expressed, have so long been familiar to my mind, that I cannot imagine that they involve anything peculiarly Channing-ian. If any correspondence do exist, it is easily accounted for by the fact, that I received my education from one, who was for many years the respected and attached friend of that illustrious man, and whose mind, cast in the same mould with his, impressed mine with those habits of thought, which have led to whatever similarity may present itself between our published opinions.

In regard to Dr. Paine's criticisms upon the scientific opinions I have expressed in my Principles of Physiology, I shall not now offer any remarks; nor do I intend to take up the gauntlet from an opponent, who has shown

himself so destitute of judgment and of good feeling. Of the merits of our respective productions I am quite content to leave the public to judge.

Having few means of placing my statement before the Medical Public of America, save through your mediation, I take the liberty of so far trespassing on your kindness, as to request you to gain insertion for it in such Journals, as may give it a circulation equal to that of Dr. Paine's calumnious charges against me.

> Believe me to remain, Dear Sir, Respectfully and sincerely yours, WILLIAM B. CARPENTER.

From Dr. Forbes, Editor of the British and Foreign Medical Review, to Dr. W. B. CARPENTER.

Dear Carpenter,—As I think it would be a piece of silliness, only second to that of writing and publishing the "Examination," to attempt any detailed or serious reply to Dr. Paine's wordy reclamation, or any justification of the article in the Review to which it refers,—I shall take no notice whatever of his attack, further than relates to the charge of plagiarism. This is true, so far as the writer of the review on Hunter is concerned, but fulse as concerns you,—since you did not write that review. This I am ready to state to all persons, at all times, as the truth, without any reservation or equivocation. The conduct of the writer of that review, in palming upon the Editor a portion of the writings of another for his own,-if really done intentionally and with a view to deceive (I would fain hope that the fact may admit of some other interpretation,) cannot be sufficiently repro-Although, as being the first specimen I had had of this person's writing (and, with one trifling exception, the only one I have ever had) I might be forgiven for not suspecting the authenticity of the surreptitious passages, I take shame to myself for being so little acquainted with the eloquent writings of Dr. Channing, as not to detect the theft before the MS. left my hands for the press.

Perhaps when Dr. Paine discovers that he is mistaken in the affiliation of this portion of the Review, he may feel somewhat less confident of the evidence by which he thinks he has traced the authorship of other articles in it to you. I certainly shall not gratify his curiosity on this point, by either affirming or denying the accuracy of his conclusions; and I do not

see any reason why you should.

It is singular that Dr. Paine should have been so ignorant of the ordinary mode of conducting a Review, as not to know that the reference from one article to another is no proof whatever of the identity of the authorship of the two,—even when this reference is made by the writer of the latter article. But, most commonly, such references are made by the Editor, without any communication with the original writer, in the exercise of the privileges inherent in the office of the great editorial WE.

In looking at the vast accumulation of words in Dr. Paine's pamphlet, I confess that I feel regret that the review of his book (just and accurate as I still hold it to be) was not more favourable; as it is melancholy to think that so much time and pains should have been stolen from tasks of usefulness, and expended in elaborating a work, which, of course, no human being will read, except the author himself, perhaps the writer of the inculpated article,

and, alas, the Editor of the Review.

It is lamentable to see how this mortification of Dr. Paine's self-love has clouded his judgment throughout the whole composition of his pamphlet; and this obfuscation is nowhere more conspicuous, than where he attempts to convict you of plagiarising, in your "Principles of Physiology," from Dr. Channing. The very examples he adduces confute the charge.

Believe me, Dear Carpenter, to be most truly yours,

JOHN FORBES.

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ART. I.—ABUSE OF CATHARTICS IN COLIC.

By S. A. Cook, M. D., of Buskirk's Bridge, N. Y.

Dr. Gooch informs us that he "remembers when a boy reading a story of two knights-errant, who arrived on the opposite side of a pedestal surmounted by a shield; one declared it was gold, the other that it was silver: growing angry they proceeded to blows, and after a long fight, each was thrown on the opposite side of the shield to that where he began the fight; when both immediately detected their error: the knight who had said it was silver finding that on the opposite side it was gold; and the knight who said it was gold finding that on the opposite side it was silver." I cannot, however, subscribe to the sentiment that "this story presents a good illustration of the state of medical opinion in this age—perhaps in all ages," as such an acknowledgement amounts to nothing more or less than a concession that medicine has no facts—is a mass of baseless and contradictory theories. Medical science is a progressive science, and hence arises necessarily something of a variety in medical opinion; yet generally it is only a difference in progress; a circumstance which has its origin, not only in the state of the science in different ages, but in the extent of its cultivation by different individuals in the same age. Hence it is a consistent conclusion, and one founded on the evidence of all experience, that however well the nature and treatment of any variety of disease may now be understood, there exists a probability that future observation may throw still more light upon it;—a consideration presenting an ample field for enquiry to such as pursue the profession with a laudable ambition for its improvement.

I am desirous of calling the attention of medical men to the ordinary, or at least the too frequent, treatment of colic by active purgatives, believing that however favourable such a plan may occasionally operate, it is founded on an erroneous conception of the nature of the disease: and that it not only frequently fails of success, but is often injurious to the patient where a more judicious practice would be entirely successful. To illustrate my meaning, I shall present sketches of the history of several cases that have fallen under my observation, not doubting that the experience of almost

every practitioner furnishes similar instances.

Case I.—Feb. 1834. I was called to a gentleman about 10 A. M., suffering severely with colic. He informed me that he had lately recovered from remittent fever, that his appetite had been somewhat sharp, though he supposed he had not eaten more than he usually did in a state of health, yet he remarked that he had taken his dinner the day before with an excellent

relish; and that while riding during the afternoon he had felt occasional pains in the bowels, which became severe in the evening, when he took a small dose of castor oil, which operated sparingly about 11 P. M., with a slight temporary relief. His physician, who had been with him since about midnight, had bled him, applied fomentations, given active cathartic doses of calomel and jalap, administered a variety of enemas; notwithstanding which the pain had increased in severity, the pulse in frequency, the abdomen had become tender, and no fæcal discharges had been obtained. In this state of the case, I recommended a farther use of the lancet, the warm bath, a combination of castor oil and oil of turpentine to be repeated prove nata, and a continuation of the enemas. The warm bath afforded temporary relief; yet the disease continued, and as the patient was an eminent divine, and among strangers, other physicians were called and stronger measures resorted to: the lancet continued to be plied, croton oil in large doses by the mouth and per anum repeated, until, about forty hours from the attack, the bowels were moved freely, but without relief: the patient died

fifty-four hours after the commencement of the disease.

CASE II.—G. G., a farmer, aged 36, generally of robust health, (had an attack of colic June, 1837, from which, after several days of severe suffering he recovered through the instrumentality of the lancet, active cathartics and enemas, some of which were sent per tube into the colon à la O'Bierne) was taken with colic, January 1, 1839. I first saw him on the evening of the 5th. Up to this morning he has directed his own treatment. During this time he has taken thirteen empirical cathartic pills, seven ounces of castor oil, about the same quantity of sulph. magnesiæ, and to day, by the direction of a physician who saw him this morning, a large dose of calomel and jalap, endeavouring during the whole time to assist the operation of these various remedies, by enemas. He has had constant tenesmus, voiding small quantities of morbid mucus, during the last two days, and his bloated and tender abdomen presents evidence of extensive abdominal inflammation. The treatment to which I resorted, was as free a use of the lancet as the constitution of the patient and the stage of the disease would permit, united to a liberal employment of calomel and opium; and though this treatment was, within twelve hours, followed by free fæcal discharges and relief of the pain, yet he sank into a state of collapse and died on the morning of The post mortum appearances were those of extensive inflammation of the large and small intestines with numerous gangrenous spots near their union.

Case III.—Called to Miss H. F., 16th March, 1840, aged 16 years, from her attending physician obtained the following history, "She was taken a week ago this evening, with acute pain in the region of the ascending colon, near the top of the right ileum. Saw her first about twenty-four hours after the attack and immediately bled, when the pain subsided. I now undertook to evacuate the bowels, which was found very difficult, and was only effected by administering active purgatives and enemas during forty-eight hours, when diarrhæa supervened without pain, but attended with great restlessness, and which continued till last evening, notwithstanding mild astringents, as marsh rosemary, &c., in conjunction with pulv. Ipec. comp. were used. Last evening, the diarrhæa suddenly ceased, followed by acute pain in the region of the pyloric orifice of the stomach. The temperature of the skin, which has at no time been much, if any, above the healthy standard, at this time sank considerably below it," and it is to day cold and damp, the patient being in a stage of collapse, in which she continued about five days and died.

The above cases are but cursorily sketched from notes taken at the time, in order to call the attention of the reader to a single point, viz. the frequent consequences of a treatment based upon a supposed necessity of

¹ Rev. Cowles Carpenter of the Methodist Episcopal Church.

evacuating the alimentary canal, as a primary indication in colic. Before enquiring how far such a necessity exists, or what plan of treatment promises the most successful issue in this fearful disease, it may not be improper to examine how far that adopted in the cases already related is in conformity with the opinions and directions of our elementary writers. I shall quote indiscriminately. "The bowels have their discharges interrupted by spasmodic constrictions, denominated colic. Without engaging in the enquiry, relative to the varieties of this disease, I shall state that in all such cases, cathartics are indispensable. Being customary, here, to direct the more active articles, it is important to know that in some instances, the most lenient are to be preferred. There is a certain relation between the power of a medicine and the tone of the system, which seems sometimes to be graduated with extreme nicety and precision. What operates at one time, we find inert at another, under apparently similar circumstances, and in the same person. This is owing to a want of harmony in the case."

Dr. Mackintosh on this subject says "It is a most essential point to obtain free evacuations from the bowels speedily, particularly by means of injections; certainly the best is composed of tobacco, in the proportion of half a dram infused, for ten or fifteen minutes, in eight or ten ounces of boiling water, to be strained and exhibited when sufficiently cool." * * * "The advantage of opium is very doubtful till the bowels have been properly

moved and the evacuations examined."2

Dr. Gregory, in treating of bilious colic, recommends, where full vomiting has not taken place, an emetic of ten or fifteen grains of ipecacuanha, "which may be followed by a pill containing calomel and rhubarb, a dose of castor oil, or the common senna draught. If there be much irritability of the stomach it is better to commence with a saline draught in a state of effervescence, containing a few drops of laudanum. This will enable the practitioner to administer the aperient medicine subsequently with more advantage. When the operation of purgatives on the bowels is manifest by the appearance and odour of the evacuations, a full dose of laudanum may be given with the happiest effects." Dr. Gregory cautions practitioners against the use of opium until the bowels be evacuated, asserting that "experience will show that though it will afford relief in the first instance, its exhibition is in most cases succeeded by increased feverishness, and an aggravation of headache, and uneasiness of the bowels. In the treatment of bilious colic, the object is to free the bowels from the load which oppresses them."

Dr. Colhoun in a running note to the above, adds—"Active enemata, of turpentine rubbed up with the yolk of an egg, of salt and water, the tobacco suppository made by rolling up some wet tobacco leaves, and sewing them together in a proper form, will be useful in assisting the operation of purga-

tives according to the judgment of the practitioner."

Dr. Eberle advises, that "when the pain is confined to the bowels, occupying the colon, an active purgative in union with aromatics, or with some of the more volatile anti-spasmodics, ought to be given; and purgative enemata administered at short intervals, until the bowels are freely moved. Castor oil, with spirits of turpentine is an excellent purgative in colic from the irritation of acrid substances, or imperfectly digested articles of food lodged in the bowels. I have often employed this mixture with prompt and complete success. In some instances, however, the sufferings of the patient are so extremely great, that we cannot wait for the operation of a cathartic to procure relief. In such cases, almost the only remedy, on which any reliance can be placed, is opium given in large doses. From two to three grains should be given at once, or what is better an equivalent dose of laudanum; this will always procure relief in forty or fifty minutes;

¹ Chapman's Elem. of Therap. 5 edit. vol. i. p. 203.

Mackintosh's Principles of Pathology and Practice, p. 179.
 Gregory's Elements of Theory and Practice, 2d. Amer. edit. vol. ii, p. 324.

and in many instances of this severe character, nothing but this remedy in enormous doses will allay the extreme agony of the patient. The opium, when given in large doses in this affection, does not materially impede the subsequent operation of cathartics, and the administration of a purgative should never be neglected, as soon as the violence of the disease is moderated."

The early evacuation of the intestinal canal is made the primary indication in the treatment of colic by a great majority of our most eminent writers, though something of a variety of sentiment exists with regard to the best means of effecting this object. While some recommend mild aperients in repeated doses, either with or without carminatives, anti-spasmodics, or sedatives; or, where the patient is seen early, while the stomach contains a portion of the offending matter, either in the form of ingesta, or of depraved secretions, that these be preceded by mild emetics; others direct us to proceed at once, and especially in the more violent cases, to the use of the most powerful irritating and depressing of the class of purgatives, either by the mouth or per anum. Two drops of croton oil,2 oil of turpentine combined with castor oil,3 tobacco injections,4 and suppositories,5 &c., means, which if early used, may frequently prove successful, but which, as every practical man must have repeatedly witnessed, are not only often unavailing, but absolutely injurious. Nor is the general feeling among practitioners less favourable to the use of purgatives in this disease, under its various forms of severity: almost all following in the way thus laid out for them, without taking the trouble to observe or think for themselves, consider evacuation of the alimentary canal as the object, and end of all medical treatment.

PATHOLOGY.

A judicious prescription in any disease can only originate in a sound pathology; and as the physician who is called upon to prescribe for colic is required to act promptly, when the extreme agony of the patient, the anxiety of friends, and his own sympathies all tend to confuse his mind, he should have clear and accurate perceptions of the nature of the case The exciting and predisposing causes, the present pathology before him. and the changes to which it tends, the constitution and habits of the patient are all subjects of careful consideration; and a successful termination frequently depends upon the tact with which the predominant symptom (pain) is subdued by such remedies as diminish the existing disposition to progressive change. Few diseases possess more completely what may be termed a transition pathology; and, at whatever period of its progress the case may have come under consideration, we are to look forward to the effects of the present morbid action, as the cause of additional and different phenomena at some future time: and hence the subsidence of a prominent symptom, unless that symptom have been subdued early, is frequently no evidence of improvement, but on the contrary the harbinger of more intense morbid action. To this circumstance may be attributed the often observed circumstance (and one which frequently deceives the friends, and may the physician, if he be not on his guard,) of a sudden cessation of pain, perhaps a free evacuation of the bowels, after they have for many hours resisted the most powerful purgatives; and that too while the disease is still rapidly advancing to a fatal termination.

Without purposing to notice the varieties of colic, which different medi-

¹ Eberle's Practice, 2d edit. vol. ii, p. 323.

² Dewees's Practice, p. 798-9.

³ Eberle, op. cit.

⁴ Mackintosh op. cit. and Abercrombie. ⁵ Colhoun's Notes on Gregory, op. cit.

cal writers¹ have made more or less numerous, and some of which have undoubtedly a real existence in fact, while others probably find only a habitation in the imagination of nosologists, I shall proceed to a brief examination of its pathology.

"There appear to be three morbid conditions of the intestinal canal, which more or less exist in the simplest, as well as in the most severe and complicated forms of colic, and which evidently depend upon depressed vital

power of the digestive canal.

"1. Morbidly increased sensibility and irritability of some part, or the whole of the bowels.

"2. Irregular distention and spasmodic constriction of their canal.

"3. More or less copious generation of flatus in their track, occasioning great distention and irregular reaction—the second morbid condition adduced."2

- 1. Of the existence of the first condition, "a morbidly increased sensibility and irritability of some part, or the whole of the bowels," there may or may not be sensible evidences, previous to the developement of the prominent phenomena of the disease, or second morbid condition. There may have been during several days slight headach, a bitter taste in the mouth, eructation of sour or acrid matter from the stomach, trifling pains during digestion; or the individual may be suddenly seized, without any of these premonitory symptoms, with severe colic pains, after eating a hearty meal, and these sensible phenomena might be considered as the first link in the chain of morbid actions, had not his previous history frequently exhibited him indulging in like trespasses with impunity—a fact most reasonably accounted for, by considering the alimentary canal, or some portion of it, as previously suffering from a morbidly increased sensibility, though unrecognised by the mind.
- 2. The second morbid condition, or "an irregular distention and spasmodic contraction of the alimentary canal," or of some portion of it, constitutes the prominent character of colic, and it is only where this condition is exhibited that the disease can be said to be completely developed. Pain, usually violent in the extreme, sometimes permanent, while at others paroxysmal, a sensation of twisting or irregular contraction about the umbilicus, and more or less obstinate constipation are the most constant features of this stage.

The infrequency of a fatal termination, before inflammation produces structural changes, makes it extremely difficult to determine upon what morbid condition the pain of colic depends. The sensation of twisting and constriction are so evident to the patient, that it is difficult to dismiss the idea of spasm from the mind, while the feeling of fulness, not only recognisable by the patient, but also by the hand of the attendant pressed upon the abdomen, shows that distention of the canal by a secretion or evolution of

gas constitutes an important item in the pathology of the disease.

3. Indeed so prominent is this third condition—the copious generation of flatus in the track of the alimentary canal, that a late eminent writer³ has advanced the opinion that the condition of the parts in a fatal case of "ileus (or colic) consists in a state of simple distention, without any visible change in the structure of the part," and that the doctrine of spasm, as applied to this subject, must be admitted to be entirely gratuitous. He also contends, that the contraction, or collapsed state of certain portions of

¹ Sauvages presents twenty-two varieties. Cullen seven. Good six. M. Pariset twelve. M. Chomel about the same. Schettman six species, which are divided into several varieties; while Abercrombie includes under the common term ileus, all varieties, considering their difference to depend upon the degree or extent of morbid action.

² Copland's Dic. Prac. Med.

³ John Abercrombie, M. D., Path. and Prac. Res. on Dis. of Stomach, &c.

the canal assuming a cord like appearance, so frequently observed, "appears to be the natural state of healthy intestine when it is empty," that these parts are almost invariably found in a healthy condition at all periods of the disease; the morbid appearances, whether inflammation, lividity, exudation, or gangrene, being almost entirely confined to the distended parts; and Dr. Abercrombie thus sums up his new doctrine of ileus or colic to consist of one of two states, or that the disease arises from one of two classes of proximate causes, viz. 1. "Primary diminution or destruction of the muscular power of a portion of the canal; and 2dly, Impediments to its action, the consequence of which is, that a part, which is at first healthy, becomes impaired under the effects of this interruption." The primary diminution or loss of muscular power of portions of the intestinal tube under certain circumstances cannot I think be questioned. Such a state may arise from inflammation, either originating in the muscular coat or extending to it during the progress of morbid action; the latter circumstance accounting for the frequent attacks of colic in patients suffering from chronic inflammation of portions of the mucous surface of the canal. The diminution or loss of muscular power may arise from the effects of lead producing more or less perfect paralysis of the muscular fibre, as we observe from the same cause in the voluntary muscles. The effects of obstruction we have all witnessed in hernia, or from an accumulation of hardened fæces, yet the practioner will at once conclude that his frequently occurring cases of colic cannot all arise from so limited a catalogue of causes, and as the sensations arising from spasm, where its existence can be observed as in the voluntary muscles, are intense pain, with a peculiar feeling of constriction, he will be likely to infer the existence of the same state where similar sensations arise, though not immediately demonstrable to the sense of sight. Nor can it be expected, that the existence of spasm can be demonstrated after death. Spasm consists in muscular contraction of a morbid character to be sure; yet as contraction is one of the properties peculiar to the living muscular fibre, and cannot exist when life has ceased, we should not expect to find it on dissection, any more than we should expect to find pain, or motion, or any other property peculiar to and dependant on life. Nor does Dr. Abercrombie's thirty-sixth case, though presented as an incontrovertible proof of the truth of his peculiar views, afford any evidence against the existence of spasm. The patient, an aged female, "had, twenty-seven years before her death, suffered from strangulated hernia, which terminated in an artificial anus in the right groin. This continued open for a very considerable time, and then gradually closed," and since about ten years after the closure she has been liable to attacks of colic, one of which, March 16th, 1827, proved fatal. Eighteen hours before death, as a dernier resort, an opening through the cicatrix of the former artifical anus was made into the intestinal canal, sufficiently free to readily admit the finger entirely into the gut, without any discharge of gaseous or fæcal matter, or any relief of the existing symptoms. The feculent matter flowed freely during dissection. Now it appears to me, that if the retention of the contents of the intestine in this case depended on a loss of muscular power, that power could not be restored by death; but if, on the contrary, retained by spasmodic contraction, the obstruction would be removed by death, and would not be discoverable on dissection.

The existence of spasm may also be inferred from analogy. Where other mucous membranes are connected with muscular fibre, either directly as in the case under consideration, or by correlation of functions any, irritation of their surface produces spasm. The just emptied uterus contracts with violence upon the introduced hand—the orbicularis oculi upon the grain of sand falling upon the conjunctiva. The muscles surrounding the urethra grasp with spasmodic energy the catheter, and is it "entirely assumed and gratuitous," to suppose that the same consequences follow like irritations of

the mucous lining of the alimentary canal.

The essential pathology of simple colic, then, would appear to consist, as has been before stated, in a morbid sensibility of the whole or some portion of the intestinal tube, spasmodic, or other obstruction to the passage of the contents of the bowels, and distention arising from a secretion, or an evolution of gas, often so far extending the muscular fibre as to weaken or even destroy all muscular power in the distended portions of the canal.

To these phenomena giving rise to intense suffering, other states rapidly succeed, viz. inflammation and its consequences, often terminating fatally in various stages of its progress,—presenting on dissection every variety,

"from a recent tinge of redness to extensive gangrene."

S. A. COOK.

Buskirk's Bridge, N. Y., January 22, 1842.

For the Medical Intelligencer.

ART. II. SIX CASES OF DIARRHŒA TREATED WITH MONESIA.

By Q. GIBBON, SALEM, N. J.

Case 1st.—Mrs. K.—Married. Had laboured under chronic diarrhoea accompanied with ulceration of the intestines for two years. Three or four months ago she was put upon small doses of acet. of morphia, which after several weeks continuance arrested the disease, and the patient remained for two months apparently perfectly well. At the expiration of this time the disease suddenly returned, and soon regained all its former activity. The extract of monesiæ was now commenced in doses of 5 grs. three times a day, and afterwards increased to 7 grs. four times per day, and continued for ten days, but without any other benefit than a slight decrease of the discharge for the first two days. The medicine was then discontinued, and the morphia substituted with its former success.

Case 2d.—A child of W. H., affected with diarrhoa of 18 months standing, had used anodynes, alteratives and astringents freely, but without permanent benefit. The ext. monesiæ given in doses of two grs., three times per day, assisted by the warm bath and frictions with flannel, checked the discharges

in two days, and removed all traces of the disease in two weeks.

Case 3d.—J. M., aged 70—health delicate, had a diarrhæa, with short intermissions, for six months—had been treated with creta cum hydrarg. with but temporary relief. Took six grs. of monesia four times per day, from the 2d to the 10th of November, assisted by a few grs. of pulv. doveri., occasionally, at bed time. The discharge ceased in two days, and upon the tenth he expressed himself perfectly well.

Case 4th.—Mrs. J. Diarrhea of four or five days continuance—slight fever, tormina, stools bloody and slimy. Had resorted to no previous treatment. Took 8 grs. of ext. mones. three times the first day, which checked

the discharge, and allayed all unpleasant symptoms.

Case 5th.—A child of four years of age, affected with a bowel complaint which had commenced in the summer, and continued unchecked until November, though treated with a variety of astringents, and subjected to counter-irritation upon the abdomen. The monesia was given in doses of 2 grs. five times daily for six days, with the effect of gradually diminishing the discharges, changing their colour and consistence, and creating a vigorous appetite, which the child had not previously enjoyed. Having no more of the remedy, I was compelled to relinquish it. Dover's powder and flannel frictions were substituted, and I had the satisfaction of seeing my patient perfectly relieved in another week.

CASE 6. In this case the remedy entirely failed as in the first case. It was one of diarrhoa supervening upon phthisis pulmonalis, and had been previously treated by creta cum opio., acet. of lead., acet. of morphia, and several of the vegetable astringents, without benefit. The monesia was pre-

scribed at first to the amount of 15 grs. and afterwards increased to 40 grs. per day, and persevered in for three weeks—when, as no abatement of the symptoms was perceived, the remedy was discontinued at the request of the patient.

Remarks.—That the above cases may be entitled to their just weight in the evidence now accumulating both for and against this new remedy, it may be well to state, that the few last doses taken by Mrs. K. in the first case, occasioned slight nausea accompanied by a slight burning in the stomach. With this exception, I have not witnessed any of the irritating effects detailed by St. Ange. My doses, however, were not so large as he prescribed. The above cases lead me to infer that monesia is more astringent than tonic in its operation.

Salem, Jan. 6th, 1842.

BIBLIOGRAPHICAL NOTICES.

Dr. E. J. Coxe on Medical Inhalation.

Dr. Coxe's copious title page indicates the objects of this small volume. Dr. Coxe himself has had considerable experience in the use of inhalation in various diseases, and it is needless to say—as he has been led to publish on the subject—that he is favourably impressed with the remedy. He has cited freely from various authorities, many of whom are more worthy of being recorded in the title page than some that are placed there. The directions for the facile employment of the agent are clearly given, so that no difficulty can exist in having recourse to it.

Dunglison's Practice of Medicine.2

We can say no more than that this work has just been issued. It comprises nine books, respectively treating of, 1. Diseases of the alimentary canal. 2. Diseases of the respiratory organs. 3. Diseases of the circulatory apparatus. 4. Diseases of the glandiform ganglions. 5. Diseases of the glandular organs. 6. Diseases of the nervous system. 7. Diseases of the organs of the senses. 8. Diseases of the organs of reproduction. 9. Diseases involving various organs—as fever and cachexia.

Harris on the Teeth and Gums.3

This work is very creditable to Dr. Harris. It is on subjects that ought

'A Practical Treatise on Medical Inhalation, with numerous cases demonstrating the curative powers of the local application of various remedies in Bronchitis, Consumption, and other diseases of the respiratory organs, embracing the opinions and experience of Rush, Sir Charles Scudamore, Eberle, Mudge, Crichton, Thomas, Corrigan, Ramadge and others. By Edward Jenner Coxe, M. D. (with a motto) 24 mo. pp. 108. Philad. 1841

² The Practice of Medicine, or a Treatise in Special Pathology and Therapeutics. By Robley Dunglison, M. D., Professor of the Institutes of Medicine, &c., in Jefferson

Medical College, in two volumes, 8 vo. pp. 572, 750. Philada. 1842.

³ A Physiological and Pathological Inquiry concerning the Physical Characteristics of the Human Teeth and Gums, the Salivary Calculus, the Lips and Tongue, and the Fluids of the Mouth, together with their respective local and constitutional indications, &c. By Chapin A. Harris, M. D., D. D. S., Professor of practical dentistry in the Baltimore College of Dental Surgery, &c., 8 vo. pp. 119, Baltimore, 1841.

to receive more attention than they do from the Physician and Surgeon. After some appropriate general considerations, the author describes the physical characteristics of the teeth and gums, of salivary calculus, of the fluids of the mouth, of the lips, and of the tongue.

Ruschenberger's Second Book of Natural History. 1

This is another of those useful volumes, which Dr. Ruschenberger is employing himself so beneficially in editing. His former volume has already been received into some of our public schools, and we trust both it and the present may find their way into all.

Ramsbotham's Midwifery.2

This is an excellent work, far superior to that of Maygrier, which is, indeed, in no respect comparable to it, except in being also furnished with numerous plates. Many of those before us are, however, much superior in design, and all in execution; and the same may be said of the accompanying text. Dr. Ramsbotham has had great experience, and is well informed on all that has been written on the branch to which his attention has been mainly directed; so that we can strongly recommend the work not only to physicians but to students as an admirable guide to them. It is exceedingly well got up, and is highly creditable to its enterprising publishers.

Liston's Surgery, by Norris. 3

The first American edition of this valuable work was published in this "Library," and another edition was published by Messrs. Thomas, Cowperthwaite & Co.; so that, in reality, the edition before us is the third American. The success which it has experienced is sufficient evidence of its merit; and the value of the present edition has been greatly enhanced both by the additions of Mr. Liston, and of the excellent American editor.

Dunglison's Dictionary—New Edition.4

We extract the following remarks from the author's preface to this third edition.

"The second edition of this work was exhausted so soon after its appear-

1 Mammalogy, Natural History of Mammiferous Animals. Second Book of Natural History, prepared for the use of Schools and Colleges. By W. S. W. Ruschenberger, M. D., &c. from the text of Milne Edwards and Achille Comte, Professors of Natural History in the College of Henry IV. and Charlemagne, with plates: 12 mo. pp. 151. Philada. 1842.

2 The Principles and Practice of Obstetric Medicine and Surgery, in reference to the

process of parturition; illustrated by one hundred and forty-two figures. By James A. Ramsbotham, M. D., &c. &c. First American edition revised. Royal, 8 vo. pp. 458.

3 Practical Surgery; with one hundred and fifty engravings on wood. By Robert Liston, Surgeon. 2d American from the third London edition, with additional notes and illustrations. By George W. Norris, Surgeon to the Pennsylvania Hospital, 8 vo. pp. 588. Philada. 1842.

4 Medical Lexicon. A New Dictionary of the Medical Science, containing a concise account of the various subjects and terms, with the French and other Synonymes, and formulæ for various officinal and empirical preparations, &c. Third edition greatly ance, that not many new terms were introduced, in the interval, into medical nomenclature. These have been added, with several that had escaped the author in the former editions. He has likewise incorporated in the body of the work the synonymes, which formed an index of not fewer than twenty thousand words in the last edition.

"The circumstance of the work not being stereotyped enables the author to be constantly enlarging and improving it; and he has no doubt, that the present edition will be found to possess stronger claims on the attention of

the practitioner and student than its predecessors."

MISCELLANEOUS NOTICES.

Jefferson Medical College.—The Catalogue of this Institution sufficiently exhibits its eminently flourishing condition. Last year it numbered 163 names. This year it has 209! The course has been most satisfactory and effective, and the students will disperse to their homes full of enthusiasm for their Alma Mater.

Of the 209 Students, there were from

| Maine, - | _ | _ | 1 | Ohio, | _ | - | _ | 9 |
|----------------------|---|---|-----|---------------|---|-----|---|-----|
| Massachusetts, | - | - | 2 | Michigan, | - | - | - | 1 |
| New Hampshire, | - | - | 2 | Tennessee, | - | - | - | 3 |
| Connecticut, | - | - | | Kentucky, | - | - | - | 3 |
| New York, - | - | - | 8 | Mississippi, | - | - | - | 4 |
| New Jersey, | - | - | | Illinois, | - | - | - | 1 |
| Pennsylvania, | - | - | | Indiana, | - | - | - | 1 |
| Delaware, - | - | - | | Iowa Territor | | - | - | 1 |
| Maryland, - | - | - | | West Indies, | | - | - | 2 |
| District of Columbia | , | - | | Upper Canad | | - 1 | - | 1 |
| Virginia, - | - | - | | Nova Scotia, | | - | - | 1 |
| North Carolina, | - | - | | Ireland, | - | - | - | 1 |
| South Carolina, | - | - | 2 | England, | - | - | - | 1 |
| Georgia, - | - | - | 3 | | | | | |
| Florida, - | - | - | _ 1 | Total, | - | - | - | 209 |
| Alabama, - | - | - | 1 | | | | | |

A large number of Graduates in Medicine, from the various Colleges in this country and Europe, attended, some of whose names are included in the present catalogue.

At the Philadelphia Hospital, and occasionally at the College, Dr. Pancoast, the Professor of Anatomy, performed before the class many surgical operations of great moment; and every Wednesday, a Clinique was held by Dr. Mütter, the Professor of Surgery, at which, also, numerous important operations were performed.

Medical Department at Yale College.—The Catalogue contains the names of 47 medical students, and at a recent commencement, the degree of Doctor of Medicine was conferred on 19 individuals.

modified and enlarged. By Robley Dunglison, M. D., Professor of the Institutes of Medicine, &c., in Jefferson Medical College, Philadelphia, Lecturer on Clinical Medicine, and attending physician at the Philadelphia Hospital; Secretary of the American Philosophical Society.

Ohio Lunatic Asylum.—From the third annual report of this useful institution, it appears, that the average number in it for the present year is 143; the per centage of recoveries in all cases discharged was 54.32; the per centage of recoveries in the old cases discharged, including 18 discharged by the directors for want of room, was 23.80; and the per centage of recoveries, in the recent cases discharged, was 87.17.

The Institution appears to be well conducted, and to have a competent medical superintendent.

Geneva Medical College.—The establishment of another Medical College in the City of New York has not had the effect of injuring the country intution of Geneva. On the contrary, the Catalogue exhibits a large increase of students. The summary of the present session gives 156 students, 48 physicians "attending part course," and 7 classical students, who attend the course of anatomy:—total, 211.

Kiestein as an Evidence of Pregnancy. By H. Letheby, A. L. S.— In No. 11 of the Guy's Hospital Reports there is a valuable paper upon this subject, by Dr. Bird, in which he enumerates many cases to prove the existence of this principle in the urine of pregnant women. Since the publication of that report I have had many opportunities of investigating the subject; and, as the result will show, it forms an important addition to the already known symptoms of pregnancy. The object of this paper, however, is not only in furtherance of its value as such a test, but to point out certain precautions to be observed in the experiments, in order to prevent fallacy.

The urine should be procured at a time when the woman is as free from disease as possible; and I believe that passed early in the morning, after rest, gives the least variable indications. This should be exposed, in a tall narrow glass, to a continuous temperature of about 70° of F.; if a much lower temperature than this is used, say about 40°. I have known the urine stand for more than a fortnight without undergoing any change, although it be replete with kiestein or its principles, at a temperature of 70°. However, if the woman be pregnant, we shall observe, in two or three days, the first indication of its presence by the urine becoming turbid. In a day or two more a thin pellicle forms on its surface, and this gradually acquires consistence up to a fortnight from the onset of the experiment. But long before this time you will have noticed its characteristic odour; certainly not like cheese, to which Dr. Bird compares it, but precisely analogous to the smell of raw beef beginning to putrefy: it is emphatically a putrid smell. I have kept the urine more than a month after this, but it never loses either its pellicle or peculiar odour.

Besides the error likely to arise from the adoption of too low a temperature, where the kiestien would not be separated, I would warn the earlier experimenter not to fall into the opposite error of confounding the pellicle which forms upon all urine on standing, especially that which contains the lithates in excess; the more so as the general as well as microscopic appearance of this pellicle is often precisely like that of kiestein. The appearance I am now alluding to, however, is never accompanied with the putrid animal odour; but, on the contrary, gives out a copious smell of ammonia, and when disturbed falls immediately to the bottom of the liquid. These are the

two especial distinctions.

On the value of this test I shall be very brief:—Of the 30 cases examined by Dr. Bird, 27 gave the required indications of the presence of kiestein; the other 3 were at the same time suffering under febrile excitement. Dr. Bird

¹ London Med. Gazette, Dec. 24, 1841, p. 505.

could not detect it in the urine of unimpregnated women, or after parturition,

and during suckling.

In the American Medical Library, as quoted by the British and Foreign Medical Review for October last, is a report of the experiments of Drs. M'Pherters and Perry, the resident physicians at Philadelphia Hospital. These gentlemen found it in the urine of 24 out of 27 pregnant women. Of the three negative cases, two were not in health when experimented on; further, they could not detect it in the urine of 27 unimpregnated women.

In my own experiments, which have been made at all dates between the second and ninth month of utero-gestation, there was unquestionable evidence of kiestein in 48 out of 50 cases. I am unable to account for its absence in the two exceptions, for I took care at all times to have the urine

from women as free from disorder as possible.

In 17 non-pregnant women there was no indication of its presence. In examining the urine of 10 women during the time of suckling, I found it in all immediately after delivery, but that the evidence of its existence fell off

at a period between the second and sixth months.

A question now naturally arises as to the cause of the presence of this principle, and what is its composition? It appears easily accounted for on the known sympathy that exists between the uterus and the breasts; the latter of which, taking cognizance of the gravid condition of the uterus, prepares itself betimes for the proper performance of that function which by and by is to become its necessary duty. Certain principles analogous to those of milk being imperfectly secreted, may, in this nascent condition, become reabsorbed; because, as Dr. Bird suggests, they do not find a ready outlet, and getting into the blood are excreted thence by the kidneys; and this habit of reabsorption may go on for some little time after the birth of the child.

The composition of kiestein is not so easily made out: examined by the microscope it consists at first of a multitude of globules, varying in size from the one thirty-two thousandth to the one eight thousandth of an inch; after a time these break up, or coalesce and form flakes, and then crystals of triple phosphate generally become pretty abundant in it. This shows that the greasy appearance of the pellicle is not due, as Dr. Bird supposes, to the triple phosphate, for this is after formation; nor are these globules composed of fat, for they are perfectly insoluble in ether. I have not been able to detect them in the urine until it becomes turbid, so that they appear to be formed in the urine after expulsion. They are soluble in alkalies and in boiling acetic acid, and give all the reactions characteristic of coagulated albumen or fibrin: to these, then, they are most analogous; but nothing but an ultimate analysis can determine their identity or not. The globules do not differ in appearance from those contained in milk, but their complete insolubility in ether shows that they do differ.

9 Windsor Terrace, City Road, Dec. 6, 1841.

M. Dubois on the Auscultatory Signs of Pregnancy.—The uterine souffle is usually perceptible about the fourteenth or fifteenth week of pregnancy: the period at which it may be first heard, being, no doubt dependent upon the amount of development of the uterus and its elevation above the os pubis. The point at which it is most frequently audible is towards the middle of the height of the uterus on its anterior or lateral (generally the left side) part. In this respect M. Dubois differs from M. Naegele, who states that the common situation of the uterine blowing sound is in one of the inguinal regions, extending thence upwards. In most cases, the space over which it may be heard is limited to a circle of two or three inches in circumference. A curious circumstance connected with this sound is the occasional changeableness of its situation; on one day it is inaudible at a spot where it had been distinctly heard the day before, and vice versa.

Obstetrical auscultators should be aware of this fact; else they will be apt to be perplexed in some cases. We may mention likewise that the uterine souffle varies much at different times in its loudness and distinctness, being

one day scarcely audible, and on the next, perhaps, very distinct.

That the development of this sound is somehow dependent upon the circulation of the blood through the uterus, appears from the fact that it is always much enfeebled, or even altogether suspended, by the contractions of the organ during parturition—a fact which abundantly proves that the sound cannot proceed from the pressure of the gravid uterus on the iliac arteries, as some writers have alledged. The striking resemblance of the uterine bruit to that perceived in erectile tumors, and in aneurismal varices, confirms the above opinion. M. Dubois objects to the appellation of placentary or utero-placentary being applied to this blowing sound, for the reason that, although its locality most frequently corresponds with the attachment of the placenta, it continues to be audible for some time after the expulsion of this body, and in other cases after the death of the fœtus.

The other sound, that of the fœtal heart, is a still more decisive sign of pregnancy: the number of the pulsations varies, according to the experience of M. Dubois, from 135 to 150. This tictac sound is usually most distinctly perceived on the anterior part of the abdomen somewhat to the left side: it is rarely audible before the completion of four, or four and a half, months of

pregnancy.-Medico-Chir. Review, Jan. 1842. p. 197.

Phthisis Pulmonalis, with a Fistulous Opening in the Parietes of the Chest.—The following case, exhibiting a very rare complication of phthisis,

deserves the notice of the pathologist.

A man, 38 years of age, and who for a length of time had been extremely subject to attacks of catarrh, was seized in May, 1839, with pneumonia; this yielded to active treatment, but there remained behind a dry cough, and a feverish state, accompanied with frequent chills. In the beginning of July, a phlegmonous swelling made its appearance immediately below the right mamma; it gradually increased in size, and, as a fluctuation became distinctly perceptible, an opening was made into it and gave issue to an enormous quantity of a purulo-sanguineous fluid of a suffocating odour. This discharge continued night and morning usually to the amount of three or four ounces; the opening was situated between the fourth and fifth ribs.

For three weeks there was no reason to believe that a communication existed between the outward orifice and any of the bronchial tubes; but, on the 20th of August, it was observed for the first time that air escaped with a bubbling noise during the act of expiration, and when the patient coughed or spoke. It was easy to trace, by listening to the direction of the cavernous souffle which was very distinct, the course of the fistula inwardly. The pectoriloquy also was so loud that it seemed as if the patient spoke directly into the ear of the auscultator. Two months subsequently, a second opening between the fifth and sixth ribs was formed, and gave issue to a purulent discharge mixed with air. In the first week of December, the patient expectorated for the first time a small quantity of purulent sputa. There commenced also at this time occasional attacks of orthopnœa; but the breathing during the intervals was not much distressed: the emaciation was extreme.

It is a curious circumstance, that the late Dr. Hamilton, so long the distinguished professor of midwifery in the University of Edinqurgh, most stoutly maintained that the pulse of the child in utero, and also after birth until breathing commenced, seldom exceeded 60 or 70 pulsations in the minute. In our notice of his last work, in the number of the Medico-Chirurgical Review for July 1836, we questioned the accuracy of the doctor's assertions, and incurred in consequence his wrathful criticism. Our readers may find it worth their while to revert to his pamphlet, and our rejoinder, in the number of this review for January 1837.—Rev.

A remarkable feature of the case was an exceedingly constipated state of the bowels, with an almost voracious appetite. On the 9th of January, the fifth rib was nearly exposed for about two inches in extent, being covered only by a few pale granulations; the quantity of the discharge by the wound continued as before; but the expectoration had quite ceased. The denuded portion of the rib became necrosed, and was gradually detached in small pieces. The patient died exhausted on the first of April.

(We suppose that a dissection was not permitted, as there is no mention

in the report of the appearances after death.)

Remarks.—It is doubtful whether the formation of the abscess in the parietes of the chest was the effect of the pulmonic lesion extending itself towards the surface, or whether it was not rather a simultaneous disease developed accidentally over the situation of the cavern in the lungs. The circumstance of no air being observed to escape for three weeks after the opening of the abscess may lead us to adopt the latter opinion.—Archives de

Medecine Belge.

We observe that M. Raciborski recently exhibited to the Royal Academy a case in which a tuberuclous excavation of the lungs communicated with a subcutaneous foyer. The disease, says that gentleman, seems to be confined to a point of the left lung over the fourth or fifth rib; the respiratory sound being normal over the whole of the front of the chest. Over the spine of the clavicle and near the root of the bronchi, a loud gurgling noise is heard, especially during the fits of coughing. The pulmonic abscess communicates with the subcutaneous cellular tissue at this part, and the skin there is observed to be distinctly lifted up during each fit of coughing. By applying the hand over the part not only may this rising of the skin be perceived, but a sensation of the displacement of a fluid may also be felt. Compression causes the swelling to disappear, and occasions a peculiar sound arising from the retrocession of the air and fluid.—Johnson's Medico-Chirurgical Review, Jan. 1839, p. 218.

Memoir of a Gentleman born blind and successfully operated on in the 18th year of his age. By Dr. Franz. —At the birth of this young gentleman (the son of a physician) the eyes were found to present a twofold defect of organisation. Both eyes were turned inwards to a great extent—and cataract existed in both. Towards the end of the second year, keratonyxis was performed on the right eye, which was followed by iritis, and wasting of the eye-ball. Within the next four years, two similar operations were performed on the left eye, without any success, but with no destruction of the eye. The colour of the opacity, at length, became of a clearer white, and some faint perception of a strong light was experienced by the boy.

Into the long and minute description of the state of this gentleman's eyes in his 18th year (1840) we cannot go. It appeared that the *right* eye was completely amaurotic, and the *left*, which had become atrophied, was the only one considered fit for an operation. The following were the steps

taken.

"On the 10th of July 1840, in the presence of Dr. Swaine, and with the kind assistance of Messrs. F. Fowke and F. Steinhaeuser, I made an incision in the cornea upwards, and introducing a pair of fine curved forceps, armed with teeth, into the posterior chamber, I seized the anterior wall of the capsule by passing one of the blades of the forceps into its small aperture, and attempted by pulling it slowly to separate it from its adhesion with the uvea and its peripheral connection, in which I succeeded without producing a prolapsus of the vitreous body, or tearing the capsule, which I now removed. After this proceeding, a large piece of the lens of an opaque colour, probably the nucleus, presented itself in the pupil, which was easily removed from

the eye by means of Daviel's spoon; the pupillary aperture then appeared persectly clear and black. The patient was now turned with his back to the light, for the purpose of trying a few experiments as to his sight, but from these I was obliged to desist on account of the pain which the light produced in the organ. Both eyes were then closed with narrow strips of court-plaster, and the patient carried to bed. Venesection, local bleeding, fomentations with iced water, continued without intermission for about forty-eight hours, together with the scrupulous observance of the most severe regimen, barely succeeded in keeping down the inflammation, the effects of which in this case, where but one eye offered hope, were much to be dreaded, if it should surpass that degree which was necessary for the healing of the wound in the cornea. This process went on and terminated so favourably, that the cicatrix, situated close to the sclerotica, is now scarcely visible. The patient suffered from muscæ volitantes and from a considerable intolerance of light, pain being produced by even a mild degree of light falling on the closed lids. The muscæ volitantes were greatly mitigated, and the intolerance of light ceased, after the lapse of a few weeks, by the use of proper pharmaceutical remedies, by local bleeding, change of air, &c., and the employment of the ophthalmic fountain of Professor Jungken, which I have fully described in the Medical Gazette, vol. xxvii. p. 444. To promote the development of the power of vision, the use of the fountain was continued twice daily, with Pyrmont-water and latterly with simple spring-water, for the space of three months, when it was discontinued, as it began to irritate the eye."

On opening the eye on the third day, he perceived a blaze of light, and all objects confused and in motion. He could not distinguish any object. The pain forced him quickly to close the eye. Gradual exposure of the eye to light habituated the organ to its stimulus; and when vision became tolerably distinct, all objects appeared so near to him that he was afraid of coming in contact with them, so that he was constantly correcting the sense of

sight by that of touch.

On the 21st September, 1840, Dr. F. operated on both eyes for the congenital strabismus. This operation was so successful, that the gentleman's personal appearance was much improved. In November he was able to read the names over the shop-windows, and to tell the time, to a minute, by St. Paul's clock. The tide of human existence, however, in the streets, so confused and confounded him, that at last he could see nothing. By the spring of 1841, the sight was much improved—and improving. The case, altogether, is very creditable to Dr. Franz, as well as interesting to the profession and the public. The paper is published in the Philosophical Transactions for 1841, Part I.

Division of the Muscles of the Eye in certain Cases of Blindness.—When the central portion of the cornea has become so opaque as to prevent the transmission of the rays of light through the pupil, remaining sound, we may displace the axis of the eye, by dividing one or more of its muscles, so as to induce a certain degree of squinting, and thus bring a transparent part of the cornea in the direct line of vision. Such an operation is much more simple, and greatly less hazardous, than any of the modes which have been proposed to form an artificial pupil.

M. Florent Cunier, a well known ophthalmic surgeon in Belgium, claims

the merit of having first performed it.

A man, 25 years of age, presented himself on the 21st of June, at his ophthalmic institution, with a strabismus of the left eye, which had existed from infancy. When two years old, he had suffered from a purulent ophthalmia, which had caused the destruction of this eye, and had left on the cornea of the other a dense opacity, which covered nearly the outer two thirds of its surface; the inner third, which remained transparent, was

almost quite concealed in the angle of the orbit, and was visible at those times only when the squint was made to cease. When this was done he could see near objects, by carrying them towards the nose, and then turning the eye as forcibly as possible outwardly. The anterior chamber of the cornea was normal, and the pupil was quite free and readily contracted on

exposure to light.

On the 30th of June I divided, says M. Cunier, the internal rectus muscle; and immediately the pupil occupied the centre of the orbit, and the squint vanished. The eye being, however, not sufficiently drawn outwardly to enable the patient to see objects conveniently, I denuded the sclerotic as far as the attachments of the superior and inferior recti, but without causing the slightest degree of squinting outwards. Founding my practice on the experiments made by myself and Mr. Duffin, I divided the inferior oblique muscle; this was no sooner done, than at once the eye was drawn outwards and somewhat upwards. The ecchymosed blood in the cutaneous wound was rapidly absorbed; but the healing of the conjunctival wound was rather tedious, in consequence of the very considerable retraction of the muco-serous membrane induced by the displacement of the eye-ball. Immediately after the operation, the patient was able to guide himself through my garden; and six days afterwards he came alone to my house.

He now sees so well that he can distinguish the smallest objects, when they are brought near his eye. What is remarkable is, that the pupil has become displaced in such a manner that it is now immediately opposite to

the transparent portion of the cornea.

CASE 2.—A middle-aged man, who had been blind for 12 years, was my second patient. The left eye was completely wasted; and only a part of the outer half of the right one remained transparent. By compressing the left eye, and turning the right one forcibly inwards, he could perceive the form of large objects. I divided the external rectus muscle, and denuded the sclerotic as far as the insertion of the superior and inferior recti; the eye was immediately drawn inwards so as to cause a squint in that direction, and I was gratified to find that the patient was able to see much more distinctly. Eight days afterwards, he could spread out in the market-place his wicker-baskets, which he made to earn a subsistence.

In the third case, in which the operation for forming an artificial pupil had previously been attempted, but without success, M. Cunier divided the external rectus; and, although the case was certainly a very unfavourable one, considerable improvement of the vision was effected.—Gazette Medicale.

Remarks.—This application of ocular myotomy is certainly one of the most ingenious and scientific that has been proposed. The operation for making an artificial pupil being always hazardous, and seldom successful, surgeons will gladly avail themselves of the practice suggested by their Belgian confrere.—Medico-Chirurg. Rev., Jan. 1842, p. 211.

NECROLOGY.

We regret to announce the death of Professor Davis, of University College, London, well known as the author of some valuable works on Obstetrics:—and also that of Dr. Birkbeck, to whom the merit is due of having originated the Mechanics' Institution, in Great Britain and elsewhere.

Dr. Birkbeck was highly estimated as a physician and a philanthropist; but has not left behind him any important contributions to medical science.

AMERICAN

MEDICAL INTELLIGENCER.

New Series.

Vol. I.

February, 1842.

No. 8.

ART. I.—QUININE IN ASTHMA.

By B. R. Hogan, LATE U. S. A.

The value and importance of quinine in all paroxysmal and congestive diseases have secured for it a high place in our catalogue of therapeutic agents. In the latter condition of any of the important organs, it is the safest and most efficacious agent in the materia medica. From its happy influence in relieving congestion, in our autumnal fevers, I was, à priori, induced to administer it in asthma. In every instance in which I have given it, or known it administered, the complete relief of the dyspnwa, and termination of the paroxysm, have succeeded in an hour. Subsequent attacks have been warded off. The paroxysm is as tractable to the influence of quinine as the slightest quotidian.

In the forming stage of croup, two grains of quinine, and a snuff plaster

to the breast of a child, two years old, parried the attack.

My friend John A. English, M. D., of Cohaba, Ala., has used it with complete success, in a long standing case of asthma, which had resisted the usual remedies. Four grains of quinine "operated like a charm," and relieved the patient in thirty minutes.

I communicate to you this important effect of quinine, in order that the profession may scrutinise the high claim I set up for it, and, by further experience, direct in what cases it may be most beneficially administered, in one of the most distressing and intractable diseases "which flesh is heir to."

From two to eight grains of the sulph. quinine at a dose, to be repeated in an hour if not relieved.

B. R. HOGAN.

Cambridge, Dallas Co., Ala., Jan. 31, 1841.

ART. II.—DEATH FROM ERYSIPELAS: PRICKS BY A SCAL-PEL—SLIGHT RAZOR CUT—SCRATCH BY A NAIL—PULL-ING OUT A MOLE—REMEDY FOR BEE STINGS.

By James Mease, M. D., of Philadelphia.

In the month of December last, it was stated in the newspapers, that a young man had died at Framingham, Connecticut, in consequence of using the same razor, (without wiping) to shave himself, which he had just before employed to shave his deceased father. The impression was, that some morbid matter on the face of the father had been applied to that of the son, and had caused his death. The principle of action—humani nihil à me alie-

num puto, might have been sufficient for me to inquire about the fact, but more was concerned than the indulgence of professional curiosity, or a benevolent feeling:—a life was in question; I therefore determined to ascertain the particulars, and accordingly addressed a letter to a gentleman resident in the town, requesting a communication of them. From him I received the following printed article, by the attending physician, Dr. Whitney, which appears to have been addressed to the editor of the newspaper, published in the place where the parties resided.

"Framingham, Oct. 29, 1841. "Mr. Editor.—Having seen different accounts in the newspapers respecting the death of our very worthy and esteemed townsman (Mr. Henry W. Coolidge) and knowing the circumstances of the case, I take the liberty of stating them to you as they occurred. The aged father, who had been sick for some time, died of a hepatic disease. He had too, as is frequently the case, at the termination of many diseases, a very bad thrush or canker in the mouth, attended with frequent hemorrhages. The son, who had always the mouth, attended with frequent hemorrhages. The son, who had always enjoyed good health and was well at this time, (with the exception of what he termed a cold sore or two on his lip) shaved the father after his decease. Then with the same razor, brush and soap, he shaved himself immediately. This was on Tuesday and by the Saturday following, one of the sores upon the lip became very troublesome, affecting it internally and externally. Sunday his disease progressed and thus continued daily to increase producing a most hideous swelling of the head and face, till the next Saturday, when he died. The disease was no doubt gangrenous erysipelas. Was it an idiopathic disease, or was it communicated from the father by means of the brush? Should think the latter highly probable.

"Yours, with respect, I presume the sores on the lip must have been irritated by the edge of the razor, and given rise to the erysipelas. That the cause suggested was quite sufficient to produce this often unmanageable disease, is probable from our knowledge of its frequent occurrence after apparently slight local affections, and of serious consequences, and even death from them. Many anatomists have died from the irritation roused in the system by pricking a finger with a scalpel. Falck, an English author on syphilis, and of other medical works, and two professors of the Medical School in Dublin, died from the effects of the first accident. Falck, many years since, and the two last within ten or twelve years. Another lost his life from scratching his hand with the sharp edge of a rib. A few weeks since, a man cut one of his fingers when strapping his razor, and died shortly after, from inflammation and gangiene in his hand and arm. Another scratched his finger last year, with a nail in a barrel which he was handling, and died in the same way. I knew a dreadful and mortal cancer which destroyed the lower jaw, and finally life, to follow the pulling out a small mole in the chin; and I have recorded several cases of death from the poison of honey bees, an humble bee, and wasps, which they had manufactured from the sugar, or saccharine fluid sucked by them from flowers, fruits, or sweet cider. Death took place in 10, 20, and 30 minutes after the stings were inflicted.1 The poison of spiders has been equally mortal as that of bees. But what was the modus operandi of these venoms? why, you will say, they destroyed the vital principle,—certainly,—but what is this? the answer leaves the inquirer as wise as before he asked the question. Here is a fine and new subject for a prize essay, by some learned medical corporate body. By the way, since the publication of my paper just referred to, a case occurred in the vicinity of Philadelphia, of a bee-sting which was attended with spasms and such high excitement as to require venesection twice. Aqua ammonia was also liberally given with good effect. This remedy should be applied immediately to the part after a sting, and also given internally, every ten or fifteen minutes, in doses of 10 or 15 drops in water, and the vapour inhaled by the nostrils.

¹ Amer. Journal of Med. Sciences, for Nov. 1836.

ART. III.—ON THE PSEUDO-MORBID APPEARANCES OF THE BRAIN AND ITS ENVELOPES.

By Robert Paterson, M. D., &c.1

Physician to the Leith Dispensary.

The object of the present communication is to take into consideration the pseudo-morbid changes which take place in the brain and its envelopes.

These changes present themselves under the forms of colourations and softenings,—appearances with which, as arising from disease, every medical man is familiar; but which sometimes are noticed, and bearing a very marked character, when few or no symptoms have existed during the life of the patient, to give rise to the suspicion, that such a state of matters would have been found after death. In such cases, we shall find a ready explana-

tion of the phenomena in pseudo-morbid changes.

During the course of a series of experiments on pseudo-morbid ramollissement or softening, as occurring in the brains of the lower animals, we had occasion to draw up a table showing the different parts of the brain which were successively affected with pseudo-morbid softening, and, upon comparing this table with others which were drawn up after a similar manner from the works of Abercrombie, Andral, Louis, Bright, &c., some striking similarities were noticed with regard to the parts which were first found softened from disease and from pseudo-morbid change.

This similarity at once suggested the idea, that, in consequence of this source of fallacy, some mistakes may have occurred; more especially with the authors in this country, as here the same facilities for the examination of dead bodies does not exist, and often a much longer time is allowed to

elapse between death and dissection.2

.It shall be our object to point out the circumstances connected with this

source of fallacy, so that it may in future be guarded against.

We use the term pseudo-morbid in the consideration of this subject, not only as it has been employed by the most recent writers on these phenomena, but because it includes the many appearances, (unconnected with disease,) which may take place immediately before death, at the moment of dissolution, and subsequent to that event. The terms cadaveric, post mortem, pseudo-inflammatory, inflammatoidal, and M. Andral's cadaveric or post mortem hyperemic appearances, have each been applied to the phenomena in question; but the term which we have adopted seems preferable to any of these, on account of its more extensive signification.

CAUSES OF PSEUDO-MORBID PHENOMENA IN THE BRAIN.

The causes which operate on the brain, and give rise to pseudo-morbid

colourations and softenings are four in number.

I. Obstruction in the course of the Venous Circulation occurring shortly before death.-Cases of slow asphyxia furnish illustrations of this. Dr. Bright has given a beautiful instance of it in a case of obstructed circulation through the large veins;3 and M. Andral, speaking of his mechanical hyperemia, says, "Thus, in such a case, the brain, when sliced, presents numerous red points, which are nothing else than the divided orifices of the congested vessels."

II. Gravitation of the Blood to the more dependent parts (the hyperemia by hypostasis of M. Andral).—This cause comes into operation most frequently at the posterior parts, in consequence of the manner in which hodies are generally laid out after death. M. Andral believes that we may produce

¹ Edin. Med. & Surg. Journ., Jan. 1842, p. 106.

² Some of the authors of this country do not even mention the length of time which elapsed, which consequently gives us no room for judging.

Bright's Medical Reports, Vol. ii. Part 1st, p. 6.

a colouration of the substance of the brain, by simply making the head more dependent than the body. This assertion is contrary to the statement of Drs. Kellie and Abercrombie, and also opposed to experiments which I myself have witnessed on dogs which were suspended by the hind legs, immediately after death. The blood was thus allowed to gravitate towards the head. But on comparing those animals with several others which had been suspended in a contrary direction, and where, of course, the blood was allowed to gravitate towards the posterior extremities, little difference was observed in the quantity of blood which the brains of each respectively contained. The same fact is taken notice of by Dr. Kellie. Whether the result of these experiments is to be accounted for by the difference existing in the method by which the brain of the lower animals is protected from pressure, in consequence of their horizontal position, I am unable to say. But there can be no doubt that in the human brain, colouration is frequently produced by the gravitation of the blood to the depending parts; and it is obviously a most important duty to note the position of the head in the examination of bodies found dead, as well as in many other cases.

III. Extravasal transudation and imbibition of the Blood, or of some of its component parts, after death.—This is a cause which is well known to produce ecchymosed spots around the vessels of the scalp, and bloody-serous effusions in the cerebral and spinal arachnoid membrane; and we shall presently have to direct the reader's attention to another pseudo-morbid

phenomenon resulting from it.

IV. Spasmodic action of the muscular system, occurring towards the close of life, may be enumerated as another cause of the appearances which simulate the phenomena produced by disease. It operates during infancy, when the fontanelles are open, by pressing the blood into the cranial case from the rest of the body; and we shall have further occasion to refer to it

as a cause of pseudo-morbid appearances.

Pseudo-Morbid Colourations.—Every medical man accustomed to the inspection of dead bodies must have felt the difficulty of determining, when the substance of the brain was to be considered in a morbidly congested state. Colouration in its various stages has frequently been observed, while the most careful inquiries have failed to detect the previous occurrence of corresponding symptoms; and too often, we believe, have pseudo-morbid injections been regarded as the effects of some inflammatory action supposed

to have been going on in the brain.

The appearances which cerebral colouration presents are two in number, the spotted or the "injection sablee" of M. Lallemand, and the diffused or uniform. The spotted redness is allowed by all authors to be simply an increase in the number and size of the red spots which naturally occur. It is best seen in the medullary substance, while the diffused almost always occur in the cortical. The spotted redness is by far the most frequent pseudo-morbid appearance; and it is remarkable that it is also a much surer indication of inflammatory action. It is to be seen in those who die from slow asphyxia, from an impediment to the circulation in the right side of the heart, or in the veins of the upper part of the body. It also happens as a consequence of convulsions, when these take place before the fontanelles are closed. The brain is then exposed to pressure, not only from external agencies, but also from such as act through the circulation, without a cor-

¹ My friends, Professors Reid and Simpson, who were present at the experiments referred to, were satisfied that little difference existed in the actual quantity of blood in the vessels of the brain. Although in the animals hung up by the tail, and where, of course, the blood was allowed to gravitate to the head, there was such an enormous quantity of blood in every minute vessel of the external parts and bones themselves, that it was impossible to keep it from rapidly passing over and colouring the brain. This gave rise to very fallacious appearances, which, however, were easily proved to be so by taking a clean knife, and making a new slice of the brain, when it was seen of its natural colour; but very soon became red, from the causes formerly mentioned.

responding external pressure. The violent muscular contractions of a convulsive attack force the blood along the arteries, and restrain the freedom of its passage through the veins proceeding from the head; an accumulation, therefore, takes place in the vessels and substance of the brain, which are

beyond the influence of muscular pressure.

By such means, then, may spotted colourations be produced in the substance of the brain, resembling the results of the first stage of inflammation; and all these circumstances must be taken into consideration, before deciding whether a congestion be the result of disease, or a pseudo-morbid phenomenon. In cases where a general appearance of congestion is found, it is important to note the kind of death the person has died, the quantity of blood in the system at the time of dissolution, the position of the body after death, the interval that has been allowed to elapse from death to dissection, the connection of previous symptoms, with post mortem appearances, and the concomitant presence of albuminous exudation, or any of the certain proofs of inflammatory action in the membranes, or any part of the brain.1 "After all," says M. Andral, "this kind of redness can only be considered as decidedly the result of active hyperemia of the brain, when it is very well marked, and even then we must always allow for the kind of death the person has suffered." After due allowance has been made for all the circumstances of the case, and they are found insufficient to account for the presence of the colouration, it may then be pronounced the consequence of

inflammatory action.

When the "injection sablée" occurs in particular parts of the brain only, or around an apoplectic effusion, the probability of the colouration being the result of morbid action, is greatly increased. Such, however, is not the case with the diffused redness which is so often met with in the cortical, and occasionally in the medullary, substance of the brain. This kind of colouration is very frequently seen surrounding apoplectic clots; and every anatomist is familiar with it in the brains of subjects which are examined at a considerable interval after death. Occurring under such circumstances, we are inclined to place no reliance on it as a mark of diseased action. mode of its formation is very simple. The substance of the brain, and especially its cortical parts, absorbs fluid with great facility; extravasal transudation of the serum and colouring matter of the blood goes on after death, and, together with the cerebro-spinal fluid, they are absorbed by the substance of the brain, which thus acquires the kind of colouration under consideration. A similar explanation applies to the zone of diffused redness, which is so often seen around apoplectic clots, and which is produced merely by the absorption of the colouring matter and serum of the effused blood. That such is the case is easily proved by the introduction of coagulated or fluid blood (the latter is preferable) into the brains of the lower animals after death. The diffused redness appears in the cerebral substance surrounding the clot in the course of from eighteen to twenty-four hours after its insertion. This experiment we have repeated several times with the same result. The constant occurrence of a concomitant ramollissement in the red portion has been supposed to add to the likelihood of the diffused redness being a morbid appearance; but a similar softening is as invariably observed in the experiments to which we allude; and it is only what we would naturally expect to find when the serum of the blood has been taken up by the cerebral tissue. We, are therefore, not disposed to attach any importance to the fact, that diffused redness around an apoplectic clot is accompanied by ramollissement, and trust entirely to the spotted colouration

For, according as the individual has died of a disease, proving fatal by slow asphyxia, or with a large quantity of blood in the system, has lain after death with the head dependent, or if a long time has been allowed to elapse between death and dissection, (or even a short time in warm weather), so must the appearances be judged of, and our opinion modified accordingly.

(whether or not associated with softening) for the proof of morbid action. If the small dots of blood are so increased in size as to form smaller coagula or apoplectic clots around the larger ones, such an appearance may still more surely be regarded as a proof that the softening has been of an inflammatory nature, and has been previous to, if not the cause of, the bloody effusion.

Pseudo-Morbid Softening.—Ramollissement or softening of the cerebral mass, has of late years attracted considerable attention; and we now proceed to consider whether softenings entirely pseudo-morbid may not be mistaken for those which occur as the result of disease.2 Pale or white ramollissement of the nervous centres (according to M. Andral) presents several degrees. In the first, the change of consistence is perceptible only to the touch; in the second, the nervous substance is so different, that the change is perceptible to the eye; in the third, it is completely fluid, its texture being totally destroyed, and nothing appearing in its place but a kind of cellular structure, which seems to be the original frame-work of the part. In the fourth degree of softening, even this trace of structure disappears, and there is a complete solution of continuity. The softened portion may either preserve its natural colour, or assume a new one, as red, purple, brown, violet, yellow, greenish, &c. Pseudo-morbid softenings, on the other hand, only simulate diseased appearances in the earlier of these stages. They may or may not be visible to the eye, but are always discernible to the touch. The colour is in general not changed; but M. Orfila has seen pseudo-morbid softenings assume all the varieties of colour mentioned above, as green, brown, &c.; so that no distinction can be drawn from the colour of the softened portions, as to whether they have been produced by morbid or pseudo-morbid causes.

We have formerly mentioned that the brain speedily absorbs any fluid with which it may be in contact. This happens even when it is covered with its investing membranes, but to a greater extent when these are removed. The brains of sheep have been allowed to stand for a certain number of hours in a given weight of water, which was rapidly absorbed. The weight was proportionally increased, and the parts most exposed to the fluid were found in a softened state. In one instance the brain was deprived of its membranes on one side, and six hours after death it was immersed in a mixture composed of equal parts of ox bile and water. It weighed three ounces seven drachms and four grains when prepared for experiment. After remaining in the mixture thirty-six hours, it weighed eight ounces and one drachm. It had a dingy yellow colour, which was much deeper on the side where the membranes had been removed. On that side the yellow colour of the bile had penetrated the whole extent of the cortical substance, but nowhere was the medullary matter at all tinged. On

Such appearances often result, as we shall presently show, from pseudo-morbid

changes

¹ The pale or white softening here referred to has been considered by some as a gangrene of the brain (Morgagni, Lieutaud, Baille); by Rostan as similar to gangrena senilis; and by Reeamier, as a change, sui generis. The white softening from putrefaction has undoubtedly precisely the same appearance, in every respect, as the white softening the result of disease.

² Softened portions of the cerebral mass are not unfrequently observed at post mortem examinations, which at once strike the examiners as being the result of disease, and yet no symptoms have been noticed during life to give countenance to the idea. They are, nevertheless, too frequently set down as the result of disease. Dr. Copland, in considering softening of the brain, and in remarking upon the frequent want of connection between symptoms and appearances after death, says, "It should be kept in recollection, that this state of the cerebral structure, although often preceded by signs of inflammation, and exhibiting in the parts surrounding it inflammatory appearances, is often neither preceded by the one, nor accompanied by the other, on the contrary, with a directly opposite train of phenomena and state of parts."

the side where the membranes had been left entire, the subarachnoid cellular tissue was quite distended with yellow coloured fluid,1 and the internal

parts of the brain were in a very softened condition.

The rapidity with which fluid is absorbed by the cerebral mass suggested a series of experiments, with the view of observing whether the parts in the vicinity of the cerebro-spinal fluid might not acquire a softening liable to be mistaken for the effects of disease. The brains of sheep and oxen were the subjects of our observations. The heads of these animals were procured from the market, all killed within an hour or two of each other. They were kept in a room, the temperature of which was from 50° to 56° of Fahrenheit. They were opened at stated intervals, and, from a minute examination, the following table has been drawn up:

| Interv | al be | tweer | i de | eath | ı | | |
|--------|-------|-------|------|------|---|---|-------------------------------------|
| and | exai | minat | tion | l. | | | Parts softened. |
| 1st, | 36 h | ours, | | | | | Septum lucidum. |
| 2d, | 48, | | | | | | Corpora striata. |
| 3d, | 60, | | , | | | | Commissura magna. |
| 4th, | 68, | | | | | | Anterior part of fornix. |
| 5th, | 72, | | | | | | Internal part of lateral ventricle. |
| | 84, | | | | | • | Cortical substance in general. |
| 7th, | 112, | | | | | | Pons Varolii. |
| 8th, | 136, | • | | | | • | Hippocampi.2 |

The softenings arising from decomposition, as mentioned by M. Orfila, are seen 1st, in the commissura magna; 2d, in the septum lucidum; 3d,

in the walls of the lateral ventricles.

The situation of the softenings noticed in this and the preceding tables is very similar, and they become most interesting when compared with other tables drawn from the works of authors who have written on morbid ramollissement of the brain. Thus, M. Andral, in order to illustrate the relative frequency of diseased softening in different parts, gives 169 cases from the works of different authors, 33 of which were his own. In these

| Softening of the | e middle lobes occurred in | . 37 | |
|------------------|---|-------|---|
| 1 | corpora striata, | . 28 | |
| | anterior lobes, | . 27 | |
| | posterior lobes, | . 16 | |
| | optic thalami, | . 15 | , |
| | circumvolutions alone, | . 14 | |
| | ne hemisphere in its entire extent, | . 13 | ı |
| ci | ircumvolutions and other more deeply seated par | ts, 9 | |
| dispe | ersed through different points, | . 5 | , |
| | ne entire hemispheres, | . 4 | |
| | parieties of ventricles, | . 2 | |
| | cerebral peduncles, | . 1 | |

A point worthy of attention in reference to the foregoing table is, that, out of the 169 cases, softening took place

| In | the right | hemi | isphe | re, | | | 73 |
|----|-----------|------|-------|-----|---|---|----|
| | the left, | | • | | | • | 63 |
| In | both, | • | • | • | • | • | 33 |

' May not this imbibition of fluid into the subarachnoid cellular tissue take place immediately after death, and be one of the causes of serous effusion being so often found in the arachnoid cellular structure, and so seldom in the sac of the arachnoid in cases of meningitis?

2 Although in the preceding table we have mentioned the parts which had become softened from the date of each experiment, yet it is important to keep in mind that the parts mentioned in the first experiment, as being found softened, were always found

softened (generally more so) in each succeeding one.

The following table has been compiled from Dr. Abercrombie's table on the Diseases of the Brain and Spinal Chord. It shows the relative frequency with which he found ramollissement to occur in different parts.

| In the septum and fornix, softening was found in . | | 16 cases. |
|---|-----|-----------|
| anterior, outer, and upper parts of hemispheres, | | 7 |
| centre of hemispheres on a level with, and external to, | the | |
| lateral ventricle, | | 6 |
| internal part of ventricles, | | 4 |
| corpora striata, | | 2 |
| corpus callosum, | | 2 |
| posterior part of one hemisphere, | • | 1 |
| upper part of both hemispheres, | | 1 |
| lower part of one hemisphere, | | 1 |
| both thalami optici, | | 1 |
| all central parts, | | 1 |

Of 18 cases of white softening, or softening without change of colour, in 14 the *septum lucidum* was affected, and in 12 the *septum lucidum* and walls of lateral ventricles.

Dr. Bright found the relative frequency of softening to take place as follows:—

| In the anterior, outer, and upper pa posterior and middle lobes, | rt of | cerebrum | in . | | 2 2 | cases. |
|---|-------|------------|-------|---------|-----|--------|
| parts of brain external to, ventricles, | and | on a level | with, | lateral | 1 | |
| fornix and septum lucidum, corpus striatum, | • | | | | 1 1 | |

The preceding tables show that great variety exists with regard to the localities in which ramollissement of the brain is most frequently found by different pathologists; still, however, we observe that the parts most frequently noticed to be softened are those in the immediate neighbourhood of the lateral ventricles. It is so in M. Andral's cases, and it is more especially so in those of Dr. Abercrombie.

It must be remembered, however, in looking at M. Andral's cases, that by far the majority of them occurred on only one side of the brain, which at once takes away all idea of their being pseudo-morbid. In Dr. Abercrombie's table, it will be observed, softening of the septum lucidum and fornix occurred sixteen times, and in the neighbourhood of the lateral ventricles six times more, which is twenty-two times out 42 cases. It may be further remarked, that the generality of these softened portions are not mentioned to have been altered in colour, or any other particular remark made regarding them, further than that they were softened. The same remark applies to numberless cases which have been recorded, and in which parts of the brain have been simply described as softened, both when symptoms of disease of the brain have been present during life, and also when no such symptoms existed.

To turn to our experiments on pseudo-morbid softenings, and compare the results with those mentioned above, and taken from the works of authors on the diseases of the brain, we shall find that the softenings occur most frequently in the central parts of the brain, and chiefly in the septum luci-

dum, fornix, and corpora striata.

I do not mean to say that, in consequence of this circumstance, any one of the cases from the authors we have quoted were not genuine cases of morbid ramollissement; I only wish to point out a source from which fallacy may arise, and from which, I conscientiously believe, it has not unfrequently arisen. This latter statement will appear the more likely when we remember that in general, no mention is made, further than that such and such parts were found in a state of softening; no mention is made of the interval

between death and dissection; and that no mention is made of the season of the year at which the occurrence took place, the importance of all which

are now generally known and recognised.

Softenings may be considered then the result of inflammatory action, when they are surrounded with a zone of red vessels, with small coagula, or if the softened portions are infiltrated with purulent matter, and also, if taking into consideration all the circumstances mentioned above, we cannot attribute them to be connected with pseudo-morbid phenomena. There is another point to which we would shortly direct attention, viz. the connection of softening of the ventricular walls, or surface of the brain, connected with morbid effusion of serum.

Large effusions of serum are found in the ventricles without any softening whatever of the walls of the ventricles, nay, even there is sometimes an unusual hardness in them. Again, with very moderate effusion of serum, we sometimes find the walls of the ventricles extremely soft, and the septum lucidum and fornix broken down. With regard to the former of these two states, when the ventricular walls are found hard, along with ventricular effusion of serum, we are inclined to look upon this hardness as the result of disease. We have not unfrequently seen cases presenting this state of matters, when a considerable interval has elapsed before dissection, and when we believe in ordinary cases considerable softening would have taken place. And with regard to the latter, or when considerable softening is found with little effusion of serum, it may be remarked that white softening under such circumstances most generally arises from imbibition of fluid by the cerebral substance.

Pseudo-morbid phenomena in the cerebral envelopes.—We have, in the last place, to consider the phenomena belonging to the above head, which the membranes of the brain are liable to present. We shall find that there is only one appearance in the arachnoid and pia mater, which is liable to be mistaken for actual disease of the membrane; we refer to opacity of these membranes covering the brain from effusion. It is a well known fact, that in those who die of a lingering disease, and more especially where there is much impediment to the circulation of blood through the lungs, or its return from the head by venous obstruction, there is generally a considerable effusion of serum found under the arachnoid and into the ventricles. Thus M. Louis says, that subarachnoid effusion is generally absent when death is sudden in phthisis, but very common when this disease proves fatal by prolonged agony and impeded venous circulation.³

Under such circumstances, then, it is not unusual to find considerable epacity of the arachnoid covering the brain, and occasionally so much is to be seen, that the membrane itself has all the appearance of being thickened, or having an effusion of lymph under it. This is an appearance, however, which is very deceptive, and which is as often produced by simple disten-

'M. Lallemand imagines, that in every case of white ramollissement the white colour results from purulent infiltration; this, however, besides being denied by M. Andral, obviously cannot be the case, as white softening is the common result of putrefaction.

² It is of consequence also to remember, that many slight inflammatory softenings are rendered much more so by pseudo-morbid causes, and more especially in young persons, when the texture of the brain has less consistence than those more advanced

in age.

³ Effusion into the subarachnoid space has been noticed in three fourths of all cases of phthisis, and two fifths of other diseases; the cases all opened early. (Louis.) It is well known also, that, in the fevers of this country there is generally more or less subarachnoid effusion, accompanied, according to Dr. Alison, with no other mark of inflammation. This is quite a pseudo-morbid phenomenon in our opinion, arising partly from the slow manner of death in typhoid fever, and also the interval which is allowed to elapse between death and dissection, as well as the circumstance of its being a disease where both solids and fluids are extremely prone to putrefaction.

tion of the membrane by the subjacent fluid as by any other cause. When the membrane is greatly distended in this way, and the meshes of the pia mater are also filled, great opacity is the result. A similar appearance is observed in the cornea from over-distension by effusion into the interior of the eye, and which is well known to be removable by simply puncturing it, and the transparency at once returns. The same is observed also when a dead eye-ball is pressed between the fingers; the cornea becomes at once opaque, its transparency, however, immediately returning when the pressure is removed. So with the arachnoid, when effusion exists beneath it, and gives rise to opacity, we have only to make a few punctures in it, and it soon regains its transparency if arising from that cause; if not, we then conclude that the membrane itself is thickened, or that there is effusion of lymph beneath it.

This appearance of opacity is not unfrequently to be observed at the inferior and posterior part of the brain from the simple dependence from position of the liquor of Magendie, (cerebro-spinal fluid.)¹ It is easily distinguished from effusion of lymph, however, or opacity of the membrane,

by the above method.

It has frequently appeared to us rather a remarkable fact, that while, in inflammation of serous sacs in general, we have the serous effusion taking place into the sac itself, in the arachnoid, on the contrary, this is extremely rare; and we have been inclined to attribute this, partly to the fluid escaping when the sac is opened into, partly to gravitation towards, the base of the brain, and partly to imbibition by the subarachnoid tissue; indeed, this latter phenomenon has appeared to us of more frequent and general occurrence than any other pseudo-morbid phenomenon which the brain and its envelopes present.

BIBLIOGRAPHICAL NOTICES.

Shipman's Report relating to a case of alleged Malpraxis.2

A distinguished surgical friend has kindly communicated to us the following view of the merits of this case. It accords with the sentiments almost universally expressed on the subject. With the concluding observations, every one desirous of preserving the dignity and harmony of the profession, cannot fail to accord.

"My dear Sir—I have looked over the 'Report of the facts and circumstances' relating to a case, where a man of intemperate habits, a patient of a county poor house, has brought, by means of a fund raised for the purpose by subscription, a suit for malpraxis against his attending physicians. These were Drs. Goodyear and Hyde of Cortland Co. N. Y., who were discharged from attendance on the case, by the authorities of the house to

¹ The cerebro-spinal fluid is said to be all absorbed in twenty-four hours. This does not coincide with our observations, we having generally found it in considerable quantity at a much later period. Extravasal transudation, however, begins to take place about that time, and the subarachnoid effusion and consequent opacity is frequently earliest noticed in the immediate paid beyond of the large veneral fractions.

noticed in the immediate neighbourhood of the large venous ramifications.

² A Report of the Facts and Circumstances relating to a Case of Compound Fracture, and Prosecution for Mal-practice, in which William Smith was plaintiff, and Drs. Goodyear and Hyde were defendants, at Cortland village, Cortland Co., N. Y., March, 1841, comprising statements of the case by several medical gentlemen, together with Notes and Comments on the Testimony. By A. B. Shipman, M. D., 8vo. pp. 35. Cortlandville, 1841.

make way for Drs. Shipman, Carpenter and Patterson. In the change, which called them into charge of the case, the latter gentlemen appear to have had no agency. The plaintiff suffered a compound fracture of the lower part of the leg, with protrusion of the bones, which were reduced, and the limb, it appears to me, was judiciously dressed in the extended position by Dr. Shipman. The patient then came under the charge of the two first named gentlemen, who, as it would seem, without sufficient reasons, altered the plan of treatment, by placing the limb upon a double inclined plane, leaving the foot so unsupported as to allow it to roll outwards, and the end of the tibia to protrude, which ultimately became necrosed, and the wound verminous. The immediate question of medical dispute was the propriety of amputation in this state of the limb, 10 or 12 days after the occurrence of the injury; a question which might well be considered doubtful by judicious practitioners. My own views, considering the general good condition of the patient, would have led me to follow the practice so successfully pursued by Dr. Shipman and his associates,—excision of the dead portion of the bone and the treatment of the limb in the straight position. Much complicated medical testimony was given, and the case terminated without result, the patient withdrawing the suit.

It is necessary, perhaps, that glaring instances of mal-practice should be exposed, but one cannot but regret to see any medical question,—and there are so many in which men may honestly differ,—publicly agitated and spreading discord in a profession, of which the members, for the sake of the general good and their personal comfort, should live at least on terms of courtesy, if not of harmony, with each other. Yours truly, P."

Coxe on the Agaricus Atramentarius.1

The veteran savan, whose pamphlet is before us, has given an interesting account of this singular Agaricus; the pamphlet itself, and some of the illustrations, being printed with the ink derived from its deliquescence. Dr. Coxe first noticed the fungus in September, 1812, in his garden, and shortly afterwards, he discovered many of the same kind growing luxuriantly in the grass in different parts of Washington Square, in this city. The plant generally begins to appear from about the middle of August and to its close, and continues until even the middle of November, or later, unless frost should sooner take place; but he has found it at earlier and later periods.

Dr. Coxe details experiments which he made upon it with different reagents, and he adds:

"From several trials, I found the deliquated fluid well adapted to constitute an excellent bistre-coloured ink for drawing; and from it I had a drawing made of the plant itself, in its different gradations, from the perfect and recent cone, to its expansion and perfect development of the interior; as seen in the accompanying lithographic plate. I was induced subsequently to try it mixed with oil, for engravings in copper, and found it answer very well. It does not answer so well as a lithographic ink; as, unless great care is bestowed, such is its affinity to the water passed over the stone, that the engraving is smeared by it. I obtained, however, some pretty good ones by this process, and from its great indestructibility, I think it likely that it may be advantageously employed in filling up the writing in bank notes and other papers, as common agents appear to have but little action upon it, without at the same time destroying the paper itself. The principal difficulty will be to discover in what way it may be best cultivated."

A Brief Description of the Agaricus Atramentarius, with a Statement of some of its singular Properties, and a lithographic view of the Plant in its different changes. By John Redman Coxe, M. D., 8vo. pp. 12. Philadelphia, 1842.

Paine's Materia Medica, and Answer to Dr. Carpenter.2

The objects of Dr. Paine's therapeutical arrangement are expressed in the title page, but more fully in the preface. They are "First, To arrange the materia medica upon intelligible, physiological, and therapeutical principles. Secondly, To indicate the relative therapeutic value of the various articles, under their different denominations, by arranging them in the order of their value. Thirdly, To give the student a comprehensive and ready view of the merits of the various articles composing the materia medica, and of their relations to each other, physiologically considered: and, fourthly, to supply a convenient means of graduating the doses of medicines, &c.," p. vi.

As an accompaniment to the lectures of Dr. Paine, the work must necessarily be more useful than in any other relation, for in many parts its brevity renders it exceedingly obscure, and the decyphering of the symbols occasions more trouble than the generality of readers will bestow upon it.

On the subject of classification we are disposed to be very tolerant, for but few are found to agree, and attempts at originality are more apt to run in this direction than in others of infinitely greater importance. We think, however, that the classification adopted by Dr. Paine is exceedingly unhappy. His classes are as follows:—1. Antiphlogistics. 2. Permanent Tonics. 3. Diffusible Stimulants. 4. Cerebro-spinants or Nervous Agents. 5. Astringents. 6. Uterine Agents. 7. Urinary Agents. 8. Anthelmintics. 9. Errhines. 10. Chemical Agents. And 11. Diet and Regimen, in a general sense.

Of these classes we can comment upon one or two only. The class of cerebro-spinants or nervous agents is made to comprise, 1. Narcotics. 2. Antispasmodics. 3. Tetanics or cerebro-spino excitants. 4. Moto-paralysants. 5. Senso-paralysants. 6. Cerebro-spino-depressants. 7. Doubtful nervous alterants.

This singular choice of names sufficiently indicates the views of the author in regard to the remedial agents classed under them: but we presume he will find few therapeutists to accord with him. Thus, under Narcotics he places opium and its preparations, the preparations of morphia, henbane, lactucarium, Hoffman's anodyne liquor, hops, hemlock, belladonna, stramonium and the lycopus Virginicus; under Antispasmodics, all the narcotics, sulphuric ether, assafætida, camphor, castor, musk, acetic ether, skunk cabbage, cyanide of potassium, cyanide of zinc, ferrocyanide of zinc, valerian, galbanum, tincture of muriate of iron, creosote, cuprosulphate of ammonia, nitrate of silver, sulphate of zinc, sulphate of copper, colchicum, indigo, hydrocyanic acid, hydrocyanic ether,

² Dr. Paine's answer to Circular Letters by Drs. Carpenter and Forbes, (from the

Boston Med. and Surg. Journal,) 8vo. pp. 8, Boston, 1842.

A Therapeutical Arrangement of the Materia Medica, or the Materia Medica arranged upon physiological principles, and in the order of the general practical value which remedial agents hold under their several denominations, and in conformity with the physiological doctrines set forth in the medical and physiological commentaries. By Martyn Paine, M. D., A. M., Author of the Commentaries and of the Letters on the Cholera Asphyxia of New York, and Prof. of the Institutes of Medicine and Materia Medica in the University of New York, pp. 271, New York, 1842.

mugwort, oxide of zinc, oil of amber, cobweb, Dippel's animal oil, rue, and oil of turpentine.

Our space will not permit us to cite the agents belonging to the other orders of the class cerebro-spinants. We may remark, however, that under the 7th order of *Doubtful nervous agents*, by which Dr. Paine understands "agents whose mode of operation is remarkably peculiar," he places only belladonna and stramonium.

As already suggested, the volume before us, with the aid of the expositions of the author from his chair, may be useful to the student: but we have no hesitation in saying that it would in no respect suit ourselves.

In regard to the answer of Dr. Paine to the circular letter of Drs. Carpenter and Forbes, contained in a former number of this Journal, it may be sufficient to observe, that Dr. Paine is induced to doubt the statement of those gentlemen—that Dr. Carpenter is not the author of the review containing the plagiarism from Dr. Channing. Dr. Carpenter distinctly affirms, that he did not write it. Dr. Forbes confirms this statement. This is enough for us, and we presume for our readers. It is so regarded by every professional gentleman, who has spoken to us on the subject. In respect to Dr. Paine's "Commentaries" we wrote as we thought in the pages of the Intelligencer. Some have been less favourably impressed, as is evidenced by the article in the British and Foreign Medical Review, which has given Dr. Paine so much uneasiness. We believe that article to have been written in a spirit of honesty, and with a desire to do justice; and it would have been wise, we think, if Dr. Paine had so thought; or if he had thought otherwise, that he should have suffered the article to be forgotten. For ourselves, we have always been disposed to deprecate replies by authors to criticisms on their works. If the Review has been just, no reclamation, especially if exhibiting anger or undue sensitiveness, is of any avail; and if unjust, the public will usually disregard it. Dr. Paine has issued his answer, and has hurled an additional missile at the offenders in the preface to his Materia Medica, and we would now say of the controversy, under the kindest feeling to all parties, and in the language of the cenotaph-Requiescat in pace.

Sewall's Pathology of Drunkenness.1

This letter is contained in the first number of the *Enquirer*, a paper established by the philanthropist, Mr. Delavan, for the promotion of the great cause of temperance. Professor Sewall's remarks are, therefore, not addressed to the Medical profession. Their object is to show the serious physical evils that result from the abuse of ardent spirits; and they are elucidated by striking lithographic plates—first, of the appearances presented by the stomach in its healthy state; secondly, of those of the drunk-

¹ The Pathology of Drunkenness, or the physical effects of alcoholic drinks, with drawings of the drunkard's stomach. A letter addressed to Edward C. Delavan, Esq., by Thomas Sewall, M. D., Prof. of Pathology and the Practice of Medicine, in the Columbian College, District of Columbia, fol. pp. 15, Albany, 1841.

ard's stomach; thirdly, of those of the same after a debauch; and fourthly, of the same after death from delirium tremens.

The letter cannot fail, we think, of making that impression, of which its philanthropic author is desirous.

Publications of the Baltimore College of Dental Surgery.

In a late number, we had occasion to draw the favourable attention of our readers to a work on Dental Science by Dr. Harris. Since then, we have received vol. 2, No. 1 of the American Journal and Library of Dental Science, for September, 1841, which, owing to some inexplicable accident, has been lying in the post office for many months. This must be our apology for not having sooner complied with the request of the editors as expressed on the cover.

We have, likewise, received No. 47, vol. 1, of the Guardian of Health, edited by Thos. E. Bond, Jr. M. D., and Chapin A. Harris, M. D., a monthly periodical, which cannot fail to furnish useful information, evidences of which are manifest in the number before us.

But these are not all the recent emanations—direct or indirect—from this active institution. A valedictory address to the students of the College of Dental Surgery has been delivered by W. R. Handy, M. D., Professor of Anatomy and Physiology, which appears to us well adapted for the occasion; and lastly, we have received the second annual announcement of the Baltimore College of Dental Surgery, which contains a history of the Institution, mode of instruction, terms of graduation and of admission, &c. &c. Where so much zeal and ability are exhibited, we cannot doubt the successful issue; and although as a general rule, we object to the exclusive pursuit of specialties in the practice of our profession, this department has been always so completely separated from general, and even from ordinary chirurgical practice, that every attempt at improving the condition of Dental Surgery must receive countenance and favour from the philanthropist. The Baltimore College has led the way, and the dentists of other places must follow, or consent to be esteemed laggard in the race of improvement.

Billing's First Principles of Medicine.2

The success, which this volume has met with, sufficiently indicates its appreciation by the profession. Its main merit consists in the plain, frank, and able manner, in which the author canvasses many of the important principles of medical science. He does not always arrive at conclusions that correspond with the results of our own investigations, but we do not esteem his observations the less interesting on that occount. He properly esteems physiology to be the basis of all pathological studies. "The modes," he observes, "by which students may attain a knowledge of the nature of disease, after

1 Valedictory Address, delivered before the Baltimore College of Dental Surgery, at its Second Annual Commencement, Feb. 18, 1842. By W. R. Handy, M. D., &c., small 8vo. pp. 16, Baltimore, 1842.

² First Principles of Medicine. By Archibald Billing, M. D., A. M., Member of the Senate of the University of London, &c. &c. First American from the fourth London edition, revised and improved: 8vo., pp. 300, Philad. 1842.

learning physiology or the nature of healthy functions, which is attainable from lectures, are accurate observations of the diseases which take place in external parts, as they are submitted to our senses in CLINICAL SURGERY, and in the functions of internal parts as met with in CLINICAL MEDICINE; and MORBID ANATOMY, the examination of what is the degree and nature of alteration, which has taken place in the structure and the seat of the disease."

The work is well worthy the perusal, not simply of the student, but likewise of the practitioner. It furnishes materials for thinking, as well as for guiding the reflection, of the reader; and consequently belongs to the most useful class of scientific productions.

MISCELLANEOUS NOTICES.

On the Sounds of the Heart. By M. Cruveilhier.—From his recent investigations on this subject, M. Cruveilhier is led to infer, contrary to the general belief, and certainly in opposition to our own researches, that both sounds of the heart are seated at the origin of the pulmonary artery and the aorta, and that they are owing to the clacking of the semilunar valves:—that the first sound which coincides with the systole of the ventricles, and the dilatation of the arteries, is the result of the elevation of the semilunar valves which had been previously depressed,—and that the second, which coincides with the dilatation of the ventricles and the contraction of the arteries, is owing to the depression of the semilunar valves by the refluent blood.

The subject of the sounds of the heart is ably discussed in the work of Dr. Hope, commenced in this number of the "Library," which contains, in addition to the experiments of European observers, those of the able and estimable American Editor, Dr. Pennock.

On the Nutritive Properties of Gelatine, and other principles. By M. MAGENDIE.—A commission, consisting of MM. Thénard, d'Arcet, Dumas, Flourens, Breschet, Serres and Magendie, was appointed by the Académie des Sciences of Paris, to inquire into the nutritive properties of gelatine,—Magendie, Reporter. From this report we extract the following conclusions.²

First, We cannot, by any known process, extract from bones an aliment, which, alone, or mixed with other substances, can be substituted for meat.

Secondly, Neither gelatine, albumen, nor fibrine, taken singly, can nourish animals beyond a short time, and then very imperfectly. In general those pure substances soon excite insurmountable disgust, so that the animal prefers doing without food to touching them:

Thirdly, The immediate principles above mentioned, when artificially combined, are taken with greater resignation and for a longer time than if

Gazette Médicale de Paris, No. 32.

² Encyclographie des Sciences Médicales, Sept., 1841, pp. 385 and 513.

they were separated: but in the long run they exert no better influence in nutrition; for animals which eat them even in large quantities ultimately die under all the evidences of complete inanition.

Fourthly, Muscular flesh, in which gelatine, albumen and fibrine are associated organically, and with other matters, as fat, salts, &c., are enough, even in a very small quantity, for complete and prolonged nutrition.

Fifthly, Crude bones have the same advantage, but the quantity consumed in the twenty four hours ought to be much greater than in the case of meat.

Sixthly, Every mode of preparation, such as boiling in water, the action of chlorohydric acid, and especially transformation into gelatine, diminishes the nutritive qualities of bones, and seems even in certain cases to abolish them.

Seventhly, The commission is not, however, desirous of pronouncing now on the employment of gelatine, associated with other aliments, for the nourishment of man. Direct experiments, in which they are at this time actually engaged, can alone throw definite light upon this matter.

Eighthly, Gluten alone is sufficient for complete and prolonged nutrition. Ninthly, Fatty substances, used alone as aliment, support life for some time; but they give occasion to an imperfect and irregular nutrition, in which fat accumulates in all the tissues,—at times in the form of oleine and stearine, at others in that of almost pure stearine.

Existence of a Vegetable in Porrigo Favosa. Many communications have recently been made to the Académie des Sciences of Paris, to show the existence of a vegetable, a mycoderme in the Porrigo favosa. This vegetable seems to have the shape of a small tobacco box, and on opening it the cavity is found filled with granules. M. L. Megnier is disposed to refer many other cutaneous and mucous diseases to a vegetable origin.

Phthisis Pulmonalis, with a Fistulous Opening in the Parietes of the Chest.¹—The following case, exhibiting a very rare complication of phthisis, deserves the notice of the pathologist.

A man, 38 years of age, and who for a length of time had been extremely subject to attacks of catarrh, was seized in May, 1839, with pneumonia: this yielded to active treatment, but there remained behind a dry cough, and a feverish state, accompanied with frequent chills. In the beginning of July, a phlegmonous swelling made its appearance immediately below the right mamma; it gradually increased in size, and, as a fluctuation became distinctly perceptible, an opening was made into it and gave issue to an enormous quantity of a purulo-sanguineous fluid of a suffocating odour. This discharge continued night and morning usually to the amount of three or four ounces; the opening was situated between the fourth and fifth ribs.

For three weeks there was no reason to believe that a communication existed between the outward orifice and any of the bronchial tubes; but, on the 20th of August, it was observed for the first time that air escaped with a bubbling noise during the act of expiration, and when the patient coughed or spoke. It was easy to trace, by listening to the direction of the cavernous souffle which was very distinct, the course of the fistula inwardly. The pectoriloguy also was so loud that it seemed as if the patient spoke directly

² Medico-Chirurg. Rev. Jan. 1842, p. 217.

Encyclographie des Sciences Médicales, Sept. 1841, pp. 541, 545.

into the ear of the auscultator. Two months subsequently, a second opening between the fifth and sixth ribs was formed, and gave issue to a purulent discharge mixed with air. In the first week of December, the patient expectorated for the first time a small quantity of purulent sputa. There commenced also at this time occasional attacks of orthopnœa; but the breathing during the intervals was not much distressed: the emaciation was extreme. A remarkable feature of the case was an exceedingly constipated state of the bowels, with an almost voracious appetite. On the 9th of January, the fifth rib was nearly exposed for about two inches in extent, being covered only by a few pale granulations; the quantity of the discharge by the wound continued as before; but the expectoration had quite ceased. The denuded portion of the rib became necrosed, and was gradually detached in small pieces. The patient died exhausted on the first of April.

(We suppose that a dissection was not permitted, as there is no mention

in the report of the appearance after death.)

Remarks.—It is doubtful whether the formation of the abscess in the parietes of the chest was the effect of the pulmonic lesion extending itself towards the surface, or whether it was not rather a simultaneous disease developed accidentally over the situation of the cavern in the lungs. The circumstance of no air being observed to escape for three weeks after the opening of the abscess may lead us to adopt the latter opinion.—Archives

de Médecine Belge.

We observe that M. Raciborski recently exhibited to the Royal Academy a case in which a tuberculous excavation of the lungs communicated with a subcutaneous foyer. The disease, says that gentleman, seems to be confined to a point of the left lung over the fourth or fifth rib; the respiratory sound being normal over the whole of the front of the chest. Over the spine of the clavicle and near the root of the bronchi, a loud gurgling noise is heard, especially during the fits of coughing. The pulmonic abscess communicates with the subcutaneous cellular tissue at this part, and the skin there is observed to be distinctly lifted up during each fit of coughing. By applying the hand over the part not only may this rising of the skin be perceived, but a sensation of the displacement of a fluid may also be felt. Compression causes the swelling to disappear, and occasions a peculiar sound arising from the retrocession of the air and fluid.—Rev.

Pharmacy in France.—The School of Pharmacy in Paris comprises five titular professors, "professeurs titulaires," and three assistant professors, "professeurs adjoints." The other schools have three titular and two assistant professors. In each school there are also associated assistants, "agrégés," appointed for five years, who take the place of the professors in case of their absence, and assist at examinations. In the school in Paris there are five associate assistants, and three in the schools of Montpellier The titular and assistant professors are appointed by the minister of public instruction, from a double list of presentations, made, the one by the School of Pharmacy, and the other by the Faculty of Medicine of the town in which the school is situated. Each list of presentations contains the names of two candidates, but the same candidates may be presented both by the School of Pharmacy and by the Faculty of Medicine. one can be named as titular professor who is not a doctor in physical sciences, and thirty years of age. The assistant professors are required to be licentiates in physical sciences, and twenty-five years of age. Both are required to have been admitted Pharmaciens in one of the schools of Pharmacy. The associated assistants are to be appointed by "concours," in a manner to be hereafter arranged in the council of public instruction. To be admitted to the "concours," it will be sufficient to produce the diploma of a Pharmacien and of a bachelor in physical sciences. The director of the school is to be chosen by the minister of public instruction, from among the

titular professors. He is to be in office for five years, and is eligible for reelection. Each school is provided with a responsible secretary, chosen by the minister of public instruction, from among the titular or assistant professors. There are also one or more "preparateurs," who must have the degree of bachelor of physical sciences, and are appointed by the director, with the concurrence of the professors. The director appoints the officers and servants. The instruction in each school, comprises:—

First Year.—Physics, Chemistry, and the Natural History of Medicines. Second Year.—Natural History of Medicines, Materia Medica, and Phar-

macy, properly so called.

students are published.

Third Year.—Toxicology; and in the practical school, Chemical and

Pharmaceutical manipulations.

No candidate can be admitted to an examination for the title of Pharmacien, who has not obtained the degree of bachelor of letters. Besides the two professors in medicine who are appointed to officiate at the examinations, three members of the College of Pharmacy must also be present, namely, two titular or assistant professors, and one associated assistant. The students of the schools of Pharmacy, who have gained prizes at the "concours," are exempted from the fees. The amount remitted for each prize is to be regulated by the university. The names of the successful

The receipts and expenditure of the Schools of Pharmacy are carried to the national budget of public instruction. The titular Professor, in Paris, is to receive a fixed annual salary of 4,000 francs; in the departments of 3,000 francs. The assistant Professors, in Paris, are to receive an annual salary of 2,400 francs, in the departments 1,500 francs. The Director is to receive in addition, as a jointure, an annual stipend of 1,500 francs, in Paris, and 1000 francs in the other colleges. The salary of the Secretary, in Paris, is 3,000 francs; in the other schools, 1,500 francs. The salary of the Preparateurs, is 1,200 francs. The payment for attendance at the examinations is 10 francs for those functionaries who are called upon to officiate. The same is allowed to the professors, who are charged with the examination of herbalists. The fee for the annual certificate, granted to each student, is fixed at 36 francs in each of the schools. The charge for examinations remains unaltered; for the first examination, 200 francs; for the second, 200 francs; for the third, 500 francs. The expenses of operations and demonstrations, incurred during the third year, which are defrayed by the candidates, are fixed at 200 francs, in Paris, and 150 francs in the other schools.

The acquirement of the diploma of Bachelor of Letters, will not be required in the candidates for examination, until the 1st of February, 1844.—

Pharmaceut. Transactions. Oct. 1, 1841.1

Clinical Remarks on some Cutaneous Affections.

By W. Davidson, M. D., Physician to the Glasgow Infirmary.2

1. Ioduret of Sulphur for Porrigo. Six cases are related. Two will suffice for us.

Case 1.—Charles Biggar, aged 10, a vagrant, was admitted on the 1st February 1840. Scattered over the whole of the head were numerous thick grayish patches of scabs, which, when removed, left the surface underneath perfectly bare and shining, but, in a day or two, numerous small pustules made their appearance, accompanied with considerable itching. The eruption appeared in the form of small pustules four years ago. In this case,

¹ Medico-Chir. Rev., Jan. 1842, p. 283.

² London and Edinburgh Journal of Medical Science, No. 12, and Med. Chir. Rev. Jan. 1842., p. 268.

the scabs were first softened by the constant application of poultices for two days; the head was then shaved. An ointment, composed of five grains of the bichloride of mercury to one ounce of axunge, was tried from the 5th February to the 12th, without any improvement. The following was then employed:-

Iodur. sulphur. 3ij. Misce. Axungiæ

This ointment was applied daily to the head; and in a few days a decided

amendment was remarked.

On the 5th March, the following report was taken .- Pustules and scales are now completely gone, but there are some bald patches on head in the situation of eruption; no itching; surface of skin pretty natural; general health good.

He was dismissed in a few days afterwards.

Case 2.—Duncan M'Intyre, aged 10, a singer, admitted 30th December The whole head, particularly the forehead, was covered with a thick dry greyish white crust, accompanied with itching, but without discharge. The disease was of four years' duration, and was represented to be of a very inveterate kind. General health good; bowels regular; tongue clean; pulse 80.

> B. Iodur. sulphur. Misce. Axungiæ 3j.

14th January 1841, or a fortnight after the use of the ointment, the eruption is reported to be quite gone, and the skin covering the scalp natural in

As a precautionary measure, it was continued until the 22d, when he was

dismissed.

Dr. Davidson observes:-

"Porrigo, in all its forms, is often a very unmanageable disease, and even when cured is very liable to return. In private practice, and in the hospital, I have tried almost all the external remedies recommended by authors, but have found none so efficacious as the ioduret of sulphur, having repeatedly succeeded in curing the patient permanently with it, after a long trial of other agents. At the same time, it must be remarked, that the evidence derived from the treatment of this disease in an hospital is liable to this objection, that the future history of the case is frequently lost sight of, and there are consequently no means of ascertaining whether or not the disease

The 1st and 4th cases seem to be examples of porrigo scutulata, and both had all the appearances of considerable inveteracy; and I may here remark, that slight cases are rarely sent to this hospital. This species is generally considered the most difficult of cure, and even though the tendency to pustulation be removed, there is little dependence to be placed on this sign, until the skin becomes natural in colour, or the hair is beginning

to grow.

The 2d, 3d, 5th, and 6th cases seem to be examples of porrigo favosa; the yellow pustules and incrustation, the fetid discharge, the matting of the hair, and the pediculi are all characteristic of this species. It is in general a more manageable disease than the p. scutulata, and is more under the power of the ordinary agents employed in its cure. At the same time, it not unfrequently proves somewhat intractable. In the treatment of porriginous affections, the following is a more particular account than what is given in the short history of the cases. The head is first well washed with soap and water, the hair is then cut as short as possible with scissors, a poultice is applied, and continued for a day or two if necessary, to soften the crusts, which being removed as thoroughly as possible, the hair is closely shaved. In general, the ointment is not applied, until the head has been shaved, but if pediculi be present, it is employed from the commencement, in order speedily to extinguish these vermin. The proportion of ioduret of sulphur employed has varied from 20 to 40 grains to one ounce of axunge; but, in general, the latter quantity may be safely used from the beginning, unless there be some unusual inflammatory action present; for it seldom excites any particular pain or irritation. As a general rule, the daily application of the ointment will be sufficient, but, in some cases, it is advisable to use it twice a-day, in order to facilitate the cure.

Alteratives, or any particular internal treatment, have rarely been resorted to, when the general health was tolerably good. Laxatives have occa-

sionally been prescribed, and a mild farinaceous or milk diet."

We can speak from personal observation for the last two or three years, to the merits of the ioduret of sulphur ointment in the treatment of porrigo. We have found it, on the whole, more serviceable than any other application. In cases of porrigo decalvans we have seen it particularly useful. We employ it of greater strength than Dr. Davidson appears to do. One dram of the ioduret to seven drams of lard has been our customary formula, nor have we ever seen that over powerful.

2. Induret of Sulphur for Lepra and Psoriasis.

Case.—Margaret Phillips, aged 11, admitted 14th January 1841. The extremities were covered with circular patches of small shining white scales, which, being detached, exposed a red and somewhat elevated surface. The eruption, which was confined to extremities, made its appearance in the form of small white scales, and had existed for three years. The patient stated, that it has disappeared three or four times, after various remedies had been discontinued. General health was pretty good, tongue clean, bowels regular. Cap. sol. arsenic. gtt. vj. bis in dies.

y. Iodur. sulphur. gr. xx. Axungiæ, Zj. Misce

App. ung. part. affect. omni note.

Hab. baln. calid. secunda quaque nocte.

25th January. The strength of the ointment was increased to 40 grains to the ounce of axunge. She was completely cured by 3d February, but remained in the house for eight or ten days longer, expecting her friends from the country to take her home. On the 13th February, she was seized with severe conjunctivitis, accompanied with iritis of right eye, which was subdued in about a fortnight; but the lepra showed no symptoms of return at her dismissal.

Case.—John M'Lennan, aged 35, a labourer, was admitted 19th June, 1841. Scattered over trunk and extremities was an eruption, which appeared about eleven weeks ago, in the form of irregular slightly elevated red patches, on the surface of which a thin white scale rapidly formed. Eruption was at first accompanied with slight itching, and the scales being scratched off were rapidly reproduced. Around the knee and ankle joints the patches were more continuous, and the scales considerably thicker than over other parts of the body. When scales are removed, the subjacent surface is smooth, dry, and slightly inflamed. He was a patient in ward 10, for a similar affection, about two years ago, when he got well under the use of baths, ointments, &c. General health good.

Hab. baln. tepid. omni nocte.

B. Iodur. sulphur. Dij. Axungiæ Zj. Misce. Abrad. cap. Hab. pil. 1. coloc. comp. om. noct.

The ointment was used every night after the bath, and, on the 23d June, the scales were completely removed over whole body, and the prominence

of the red patches greatly diminished.

25th.—The amendment was progressing, but a few new papulæ, covered with very thin scales, had appeared on lower extremities, which extended to back and abdomen, accompanied with itching.

Cont. ung. et balneum. Hab. sol. arsen. gtt. x. ter in dies.

July 8th.—Eruption almost gone, a few papulæ have appeared on abdomen, general health good.

July 12th.—Eruption quite gone, a few reddish stains on skin only re-

maining.

A case of Lepra Vulgaris is given. It is not remarkably satisfactory.

Dr. Davidson remarks:—

"The ioduret of sulphur does not seem to have so much power over lepra and psoriasis as over porrigo; although, in my experience, it has succeeded more frequently than any other agent that I have tried, with the exception of blistering by cantharides. Lepra alphoides, being a milder disease than lepra vulgaris, is more under its influence, as well as the milder forms of psoriasis, particularly in children; but the species named inveterata would prove somewhat intractable to this as well as to other remedies, as I had occasion to witness in a patient, who, although benefited considerably, was not cured; he was unfortunately carried off by fever before the result was ascertained.

"Three other patients affected with lepra and psoriasis have been treated in the Infirmary during last August; two of them have been completely cured, the other is still under treatment, but nearly well; all of them of several years' standing, and having employed a variety of medicines before admission. In one of the cases, a female, who had been using large doses of arsenical solution before her admission, which she was obliged to lay aside, the comparative effects of the ioduret of sulphur, and the acetum cantharidis were tested, the first upon the lower extremities, and the second on the arms. From the result of this and other trials, I am satisfied that the latter is the more powerful as a local agent in this disease. The acet. canth. however, was found too weak when prepared according to the formula in the Edinburgh Pharmacopæia; the proportion of cantharides was therefore doubled. It is proper, however, to state, that strong pyroligneous acid was alone used, without the addition of the acetic. Some other formulæ were tried for the purpose of producing ready vesication, such as an ethereal and an alcoholic solution of cantharides, which succeeded moderately well in some cases; but the speedy evaporation of the menstruum seemed to prevent their thorough action. The following preparation, which was applied with a small brush, answered the purpose pretty well, viz. one part of cantharides to three of a mixture of equal parts of castor oil and alcohol, especially when the flies were suspended in the oil, as suggested by Dr. Leslie, apothecary to the Royal Infirmary. The following liniment, however, which is a modification of the Emp. Canth. E. P., is superior to any preparation that I have tried. It is sufficiently soft during warm weather to be applied with a brush, but requires to be heated when the temperature of

B. Axung. Ol. Rapii, P. Cantharid. ā Zj.

"In order to succeed with either of these vesicating agents, the skin ought to be previously softened either by means of the warm bath, or sponging with warm water."

[The Brandy and Salt so scornfully dealt with in the following article, has had a fitful existence with us amongst some of those credulous souls who are ready to embrace every folly of the day, no matter how extravagant it may be. There must be some tub to amuse the whale, and this is perhaps as harmless as any.—ED.]

Brandy and Salt—a remedy for various Diseases. By J. H. Vallance. Price 6d.'—Morison's pills, that Lion or Leviathan of Allopathy—the lung-stretcher of Ely-place—mustard-seed—animal magnetism—nay homeopathy

itself, may now hide their diminished heads. "Brandy and Salt" cure all diseases, and the remedy is within the reach of every individual, from a duke to a dustman. There never was a more ingenious invention, a more felicitous combination than "brandy and salt." The brandy makes the heart glad—and the salt increases the thirst for more brandy! Lucky invention—especially for the great promulgator, who has an extensive brandy-manufactory in France. None but the veritable eau de vie will have any virtue in combination with salt. Bett's and Booth's stuff are worse than useless—that produced in "LA FERTE IMBAULT," by W. Lee, Esq. is the elixir vitæ! Mr. Vallance appears to be the high priest of the temple of health in this country, and having been cured of a "bad leg," gratefully proclaims the following joyful tidings to suffering mortals.

"To all who acknowledge the superintending care of a DIVINE PROVIDENCE, the discovery of the remedy will appear as a special gift from Heaven."

If this be not the height of blasphemy we know not what is! The way in which Providence imparted this mighty secret to Mr. Lee, is somewhat remarkable. The estate of "La Ferte" was so much over-run with mosquitoes, and these little buzzing animals were so fond of English blood, that the proprietor had some thoughts of giving up his purchase, and returning to his native town of Leeds. But, just at this juncture, Providence imparted to him the grand secret-the remedy, not only for mosquito bites, but for all the ills to which flesh is heir! Mr. Lee was too great a philanthropist -and too religious withal-to let this precious communication from the Deity remain unproclaimed to the nations of the earth. The "LEEDS MERCURY" had the honour of heralding the glad tidings, and now the pamphlet of Mr. Vallance will spread the "providential discovery"—we beg pardon—the divine annunciation, to the ends of the earth! Messrs. Lee and Vallance, however, are extremely candid and honest. They frankly admit that "brandy and salt" will probably fail in rendering man immortal, by reversing the decree—"dust thou art, &c." See p. 10. This is a "heavy blow and great discouragement" to the believers in the divine annunciation. There is one consolation, however, in the fact that, where the remedy fails to ward off death, it will, at all events, if freely employed, during life, preserve the body afterwards from corruption, and render it of little use to anatomists in their dissecting rooms.

The saturated solution of salt in brandy ("best French," mind) is to be taken at first, in the dose of a table-spoonful, early in the morning, mixed with water as hot as can be borne by the mouth and throat of the patient. In case of "worms or paralytic attacks," it is to be taken undiluted!! In order that all the glory of the remedy should be secured to the proper owner, it is strictly forbidden to take any other kind of liquor than the "brandy and salt" during the cure. This is a cunning law, for the remedy will be sure to be taken to the full extent of the prescription—"and something more"—as Lord Lyndhurst would say,—during the course of the treatment. We must admit, indeed, that there is some modesty in Mr. Vallance's pamphlet. For, while Morison recommended his pills in all diseases, Mr. V. has only culled out forty of the principal afflictions, to which mankind is liable, for the exhibition of "brandy and salt." Why he did not throw the remainder of the catalogue into the bargain is best known to himself—perhaps he did not know the names of the others, or found them rather too

Among these "forty thieves" which daily rob us of the most valuable articles of our property—HEALTH, we find the following culprits who are sure to be exterminated by brandy and salt:—viz. gout, consumption! inflammation of the lungs, asthma, scrofula, palpitation, inflammation of the brain, cholera, insanity, cancer, "fevers of all kinds," paralysis, tic douloureux, spinal complaints, enteritis, mortification—and twenty-four other grievous maladies!! A large list of cases, cured of the various diseases enumerated in the pamphlet, is published at the end of the work. Mr. Vallance naively

jaw-breaking, if he consulted Good's Nosology.

observes, in conclusion, that he has been at considerable expense in advertisements, &c. to make this remedy known—"but very few of my correspondents recollected to enclose a remittance." He therefore pretty broadly kints that he will work no more gratuitously for an ungrateful public, and that those who choose to apply to him for his pamphlet, must inclose six "PENNY STAMPS!" For actual advice, "one shilling" must be forwarded, which is to be carefully secured by wax or wafers, as the money has frequently oozed out, and came not to the hand of the philanthropic dispenser of a divine gift to mankind!

While government permits, and while a community swallows such gross and unequivocal charlatannerie as this—and it is merely a sample—how preposterous is it to merge half, or rather three fourths of our grievances in

the "counter practice of the chemist and druggist!!"

Dr. Robinson of Baltimore.—We are pleased to observe in a recent Baltimore paper, a preamble and resolutions unanimously adopted by the Medical Class of the University of Maryland, in testimony of their high appreciation of the services of Dr. Robinson, who, at the request of the Faculty, undertook to assist Professor Smith in his anatomical course. We have no doubt whatever, that the estimable gentleman richly merited the grateful tribute.

Jefferson Medical College.—At a meeting of the class of the Jefferson Medical College, on Friday evening, February 25, 1844. (At the close of the session.) H. W. Ducachet, Jr. of Pa., in the chair; A. N. Bell, of Va., Secretary.

On motion, Resolved, that a committee, consisting of one from each state or territory, be appointed to draft resolutions expressive of the feelings of the class in reference to the present Faculty and arrangements of Jefferson

Medical College.

The following gentlemen were appointed on the committee:

D. T. Trites, Pa.

W. W. Sweat, Maine.

E. K. Willard, Mass.

O. Sumner, Conn.

O. W. Kellogg, N. Y.

E. B. Richman, N. J.

G. C. Jones, Del.

J. H. Miller, Md.

C. R. Harris, Va.

G. I. Musgrave, N. C.

R. W. Woddrop, S. C.

B. F. Rea, Georgia.

L. Paullin, Florida.

C. F. Williams, Ala.

E. Brown, Ohio.

E. G. Desnoyers, Mich.

L. M'Kee, Iowa T.

W. E. Brown, Tenn.

H. M. Whitaker, Ky.

S. Emanuel, Miss.

W. H. C. Shellers, Ind.

I. F. Von Bretton, W. I.

F. A. Rees, England.

P. M. O'Brien, Ireland.

W. E. Cook, Nova Scotia.

O. Ayer, M. D., N. H.

W. B. Jones, M. D., D. C.

J. Woolverton, M. D., U. C.

The committee reported the following preamble and resolutions, which were adopted.

Whereas we deem it our duty, before dispersing to our respective homes, to offer a just tribute to the Professors composing the Faculty of Jefferson

Medical College, and to the very valuable course of instruction given during the past session. Therefore:

Resolved, That we highly appreciate the zeal and ability with which the newly appointed professors have executed their arduous and important duties, as well as the marked and uniform kindness and courtesy exhibited by them and the other members of the Faculty on all occasions—both in their professional and private intercourse with us.

Resolved, That we deem the weekly surgical cliniques instituted in this College, together with the Medical Dispensary connected with the same, of the highest importance to the student, by affording him the means of observing and participating in an extensive medical and surgical practice throughout

the year.

Resolved, That we consider the present organisation of Jefferson Medical College affords, in our opinion, every possible facility for acquiring a sound theoretical and practical knowledge of the various branches of Medical Science.

Resolved, That a copy of the foregoing resolutions be presented to the Dean of the Faculty, with the request that they be published in the next annual announcement.

Quain's and Wilson's Anatomical Plates. By Pancoast.—We are glad to observe, that Messrs. Carey & Hart have issued a prospectus of this expensive work,—expensive, that is, in the original, costing upwards of 100 dollars-for 15 dollars. It is, in our opinion, the most splendid work of the kind that has appeared. Its authors are practised and excellent anatomists, and not less informed in the various relations which that important department bears to medical science in general. The plates, in the original, are faithful representations of the human frame as exposed on dissection, and are beautifully delineated.

Such a work, executed throughout with the same care as the lithographic plates which have been exhibited to us, and under the supervision of so able an anatomist as Professor Pancoast, must be esteemed a cheap and most valuable addition to our stock of anatomical works; and we cannot doubt, that it will be eagerly sought after by the student; as well as by the practitioner, to refresh his memory on important occasions.

New Medical Journal in Boston.—A Quarterly Medical Journal has been advertised in Boston, to commence—provided sufficient encouragement be received—in July next. The editorial department is to be under the care of Dr. Charles E. Ware and Dr. Samuel Parkman.

The undertaking has our best wishes; and we are satisfied to adopt the language of the advertisement-"that ample materials, of sufficient interest and importance, exist, to support with credit both a weekly and quarterly journal in New England."

AMERICAN

MEDICAL INTELLIGENCER.

New Series.

Vol. I.

March, 1842.

No. 9.

ART. I.—REPORT OF THE MEDICAL MISSIONARY SOCIETY'S HOSPITAL AT MACAO, CHINA, 1840-41.

By Wm. B. Diver, M.D., and B. Hobson, M.B., F.R.C.S.

[We have been favoured by Dr. Diver, who has recently returned to this country, and settled in Ohio, in the practice of his profession, with the following Report, which exhibits the advantages afforded to the Chinese by the benevolent exertions of the officers of the Medical Missionary Society of China, of which we have been for some years an honorary member. Whether any other important results are to flow from the establishment of the society remains yet to seen.]

In July, 1838, the Society's Hospital in Macao, as mentioned in a former Report, was first opened for the reception of patients. It was closed on the 5th of October following, in consequence of the absence of a medical officer to take charge of the establishment. On the 1st of July, 1839, it was reopened: but, owing to the extraordinary events of that year, it was found necessary to suspend its operations on the 15th of the subsequent month. During that short space, 169 patients applied for medical aid. Although medicines were administered for some months afterwards to occasional applicants, the doors of the hospital were not again thrown open to receive either in or out-patients until August, 1840. From that time, the benefits of the institution have been conferred, without much interruption, on all who applied. The cases that have come under treatment have been various, but, as will be seen from the subjoined list, are chiefly surgical. A few of the more important ones were admitted into the wards, and if their circumstances required it, a small allowance of money was granted to buy rice and fuel. Many more would have gladly availed themselves of the convenience the wards afforded, had it been considered expedient at the time to receive

Of the diseases of the eye, which form such an essential and important class of the maladies of the Chinese, catarrhal and chronic ophthalmia, acute conjunctivitis, granular lids, entropium, pterygium and trichiasis, seem to be the most general. These ophthalmiæ, which the native physicians appear never to attempt to remedy, from neglect or irritation, usually excite a varicose state of the vessels of the conjunctiva, and a thickened vascular condition of the cornea and tarsi, terminating in opacity, leucoma and final loss of vision. In the catarrhal and acute ophthalmia, although the

practice of employing local stimulants is not recommended by some high authorities in ophthalmic surgery, yet the use of nitrate of silver from 5 to 10 grs. to an ounce of distilled water, has been found very successful, joined with aperients, in their treatment. Strong solutions also of subacetate of lead, and sulphates of copper and zinc, have proved of the greatest service in the chronic ophthalmia with granulations and opacity.

Cutaneous diseases also form a principal part of the diseases of the Chinese. Pustular Scabies affects the lower orders to a great extent, and although often formidable in its appearance, is rapidly cured by the application of sulphur with some oxide of mercury. A similar kind of treatment

has been very successful in curing Psoriasis annulata.

The ulcers, enumerated, include ulcerations succeeding wounds, injuries, and other causes, affecting different parts of the body, but chiefly the inferior extremities. They are very numerous among the working classes, arising probably, from the heavy weights borne, a poor vegetable diet, or want of cleanliness. From neglect and inappropriate applications, they often become large and indolent, but by means of ablution and dressings of warm water, escharotic solutions, or stimulating ointments, they speedily assume a healthy appearance. As it is difficult to obtain linen, a kind of paper, manufactured by the Chinese, which is soft, flexible, not easily rent, and peculiarly well adapted to spread ointments upon, has been in a great measure substituted, and in the place of oiled silk, oiled paper of a superior quality, also prepared by the natives, has been used with great advantage: this, brushed over with a thin coating of gum arabic, forms an efficient adhesive plaster for small wounds.

August 20th.—A native was brought into the Hospital with a gun shot wound of the thigh, received during the engagement which took place the day previous between H. B. M.'s troops and the Chinese stationed at the Barrier. The ball entered the anterior and upper portion of the thigh, passed close to the femoral artery in a transverse direction, and lodged in the adipose tissue under the skin on the opposite side. An incision was made over it, and the foreign body extracted without difficulty. The wound thus made was kept patulous for a few days with small strips of lint covered with simple cerate, to allow of the discharge of sloughs which came away and left the passage clean. Healthy granulations formed; the wound healed,

and the patient was discharged.

September 19th.—A man entered the wards with a gun shot wound of the foot, received during the battle of the Barrier. The ball entered the sole, as the foot was raised in the act of running, and passed through, injuring in its course the small bones of the instep.

The patient, upon being informed of the true state of the case; that time and patience were requisite to allow an opportunity for cure, expressed him-

self dissatisfied, and soon after was removed by his friends.

In April, a patient aged 24, was admitted with a gun shot wound of the leg: he stated, that he received the shot from a Portuguese soldier, who suspected him unjustly to be a thief. It was followed by much hemorrhage and pain. A native friend, seeing the ball near the outlet of the wound, forthwith by a gash cut it out. About two days afterwards, he came to the Hospital. The ball had entered posteriorly by the side of the tendo achillis, two inches above the inferior extremity of the fibula, leaving a round, ragged wound, and, comminuting that bone, remained flattened and uneven at the surface of the wound in front. The incision which had been made to extract it, was three inches in length, parallel and close to the anterior tibial artery. Several loose portions of bone were removed, warm water dressings applied, the leg rolled, and its position fixed.

The wound quickly granulated and healed, with the exception of a sinus anteriorly, which was kept open by portions of loose bone still left deeply in the wound. These gradually becoming more superficial, were taken out

with little injury to the soft parts: in a month, the patient was dismissed,

the leg being straight and strong.

In September, a boy aged 16, from the country, was admitted as a patient, with three large sloughing ulcers of the leg. His health was impaired, and his pulse quick and feeble: therapeutic agents were administered, and the ulcers at first poulticed, and afterwards dressed with solutions of nitrate of silver and sulphate of copper, and the ordinary stimulating ointments,—but no benefit followed their use; on the contrary, the ulcers assumed a phagedenic character, and attended with irritative fever; other remedies also equally failed in checking the progress of the ulceration. Opium, dissolved in nitric acid slightly diluted was now applied, and happily produced an immediate change; the deep sloughs of muscle, nerves and vessels were thrown off, and all the sores presented a healthy granulating appearance. The warm water dressing, with the occasional use of sulphate of copper in solution, now speedily healed them.

The abscesses usually met with are large and chronic. Those of the scalp are frequent. Carbuncles, which are so common in hot climates, often come under treatment. Acute rheumatism has not yet been observed, but, on the contrary, chronic rheumatic pains of the joints and muscles are daily seen, arising probably from the usual causes of cold and damp in winter.

Wounds and contusions have been numerous: some have been severe from attacks by pirates. The chief character has been lacerated and super-

ficial.

In September, a man aged 40, from the island of Honan, near Canton, entered the Hospital, suffering excruciating pain from retention of urine. On examining the patient, it was discovered that he was frequently subject to these seizures, but they were of short duration compared with the present, which had existed three days. The bladder was readily recognised, distended with fluid, and rising up to the umbilicus; the pulse quick, and countenance anxious. The urine was immediately drawn off by a silver catheter: it was dark, of strong ammoniacal odour, and exceeded two quarts. The next day it was necessary to renew the operation, and, for many days afterwards, changing the size of the catheter. The prostate was five times its natural size, and the urine deposited large quantities of thick, white sediment, which, on examination, was found to be chiefly the magnesio-phosphates. Active purging, with the daily use of the catheter, in three weeks restored him to his usual health; he returned subsequently to offer thanks, and continued well. As future attacks might reasonably be expected, a silver catheter was made for him at his own expense, which he learned how to use. Other cases of retention from stricture, or enlarged prostate, have been similarly treated; with the warmest thanks for the relief imparted.

Two cases of dislocation, one of the humerus into the axilla, and the other of the first phalanx of the thumb upon the anterior surface of the metacarpal bone, may just be noticed. Both had been dislocated for more than six weeks when they applied for admission. The first was occasioned by a fall from the mast to the deck of a ship, and the other from a blow. In the one case, extension and counter-extension were steadily maintained for two hours and a half, by means of ropes and pullies; and the other, for a considerable length of time, and repeatedly, by a small cord fixed with a clove hitch; but neither of them could be reduced, though the system was nau-

seated by tartarised antimony.

A few interesting cases of thickening and deposition of serum in the cellular tissue of the leg, greatly distorting its size and shape, have been treated successfully, with stimulating liniments, equal and continued pressure by rollers, and saline aperients. But as soon as the pressure is removed, and the patient begins to walk, the disease has a tendency to return, and the integuments thicken and become hard, as in elephantiasis.

Some cases of enlarged spleen have come under observation, but too few

at present to remark upon.

From the many opportunities that have presented, in examining the effects of opium-smoking upon the Chinese, some allusion to it may be expected. It is the unbiassed conviction of observers, that its habitual use is injurious to the health and happiness of those addicted to the practice. Its baneful influence is insidious, but certain; and its moderate indulgence, if means permit, lays the foundation for its continued and increasing use.

The three cases of poisoning, mentioned in the list, were produced by swallowing large doses of the extract of opium, under the influence of excited feelings: two were dead before remedies could be employed; the other, a young female, recovered, having vomited the opium before it could be ab-

sorbed into the system.

Further remarks upon the nature and character of the diseases of this and the neighbouring provinces will be reserved for a future report, when more ample opportunity has been afforded to form an important and extended analysis of them.

REGISTER OF DISEASES TREATED IN M. M. S. HOSPITAL AT MACAO, CHINA, FROM AUGUST, 1840, TO JULY, 1841.

| Diseases of the Eye. | | | | | | | | | | |
|-----------------------------------|----------|-------------------------------|----|--|--|--|--|--|--|--|
| Catarrhal ophthalmia | 35 | Epiphora | 6 | | | | | | | |
| Chronic ophthalmia | 21 | Hypopium | 3 | | | | | | | |
| Conjunctivitis, acute and chronic | 38 | Glaucoma | 1 | | | | | | | |
| Cataract | 22 | Iritis | 6 | | | | | | | |
| Entropium | 16 | Nyctalopia | 4 | | | | | | | |
| Ectropium | 4 | Synechia posterior | 1 | | | | | | | |
| Granular lids | 43 | Closure of the pupil | 2 | | | | | | | |
| Opacity of cornea | 35 | Loss of vision | 11 | | | | | | | |
| Ulcers of cornea | 8 | Diseased eye-lids | 11 | | | | | | | |
| Staphyloma | 5 | Conical cornea | 1 | | | | | | | |
| Pterygium | 28 | Ptosis | 1 | | | | | | | |
| Leucoma | 10 | Tumor of upper lid | 1 | | | | | | | |
| | 15 12 | Enlarged caruncula | 1 | | | | | | | |
| Amaurosis | | Abscesses of lachrymal sac | 1 | | | | | | | |
| | | f the Skin. | | | | | | | | |
| | 97 | Herpes | 7 | | | | | | | |
| | 47 | Bullæ | 1 | | | | | | | |
| Lepra | 7 | Ichthyosis | 1 | | | | | | | |
| | 9 | Erysipelas | 1 | | | | | | | |
| Porrigo | 9 | | | | | | | | | |
| Disease | es of | the Chest. | | | | | | | | |
| Acute bronchitis | 2 | Catarrh | 33 | | | | | | | |
| Chronic bronchitis | 17 | Asihma | 2 | | | | | | | |
| Hæmoptysis | 8 | Chronic laryngitis | 1 | | | | | | | |
| Diseases | of t | he Abdomen. | | | | | | | | |
| | 30 | Inguinal hernia, congenital . | 1 | | | | | | | |
| Ascites | 4 | Umbilical hernia, congenital | î | | | | | | | |
| | 16 | Hæmorrhoids | 7 | | | | | | | |
| Enlarged spleen | 5 | Constipation | 5 | | | | | | | |
| Inguinal hernia | 4 | Gastrodynia | 2 | | | | | | | |
| Diseases of the Urinary Organs. | | | | | | | | | | |
| Retention of urine from en- | ne c | Ulcers of prepuce and glans | | | | | | | | |
| | 10 | penis | 6 | | | | | | | |
| Hydrocele | 8 | Bubo | 8 | | | | | | | |
| Diseased testis | 5 | Dysuria | 3 | | | | | | | |
| Phymosis (congenital) | 2 | Gonorrhea | 9 | | | | | | | |
| Luj mosis (confenicar) | | | | | | | | | | |

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|--|-------------------------------|-------------|
| Disease of the | Uterine System. | |
| | n ı · · | |
| | Prolapsus uteri | 1 |
| Suppressio mensium | Inflammation of pudenda . | 4 |
| General | Diseases. | |
| Ulcers | Thickening of cellular tissue | |
| Abscesses 70 | of the leg | 11 |
| Carbuncles 19 | Cachexia | 9 |
| Rheumatism 96 | | 17 |
| Lumbago 6 | Varicose veins | 11 |
| Intermittent and continued | Enlarged thyroid gland . | 6 |
| fever | Inflammation of tendo-Achil- | |
| Onychia 14 | lis | 7 |
| Whitloe | Encysted tumors of the face. | 2 |
| Inflammation of joints . 18 | Ganglia on tendons | $\tilde{4}$ |
| Morbus coxarius 5 | Poisoning by taking a large | _ |
| Dislocations 4 | dose of the extract of opium | 3 |
| Fractures 3 | Deformity of the bones of the | |
| Necrosis and caries . 9 | foot, from light and irregu- | |
| Exfoliation of the outer table | lar bandaging | 1 |
| of the skull 1 | Anomalous, or unnecessary to | |
| Exfoliation of the lower jaw 4 | name | 64 |
| Anasarca 17 | Vaccinations not recorded. | |
| General . | Summaru | |
| 0 1 1 1 1 11 010 | | 05 |
| | | 35 |
| Cutaneous diseases 191 Pectoral diseases | , 10 | 705 |
| | classified | 725 |
| TT 1 1 21 | Total | 1457 |
| TTT 1 44 | Total | 1457 |
| vvounds · 41 | | - |

ART. II.—ANNUAL REPORT ON SURGERY, READ BEFORE THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

By Dr. Parrish, November 2, 1841.

[From the "Quarterly Summary of the Transactions of the College of Physicians of Philadelphia,"—an old and most respectable body—we extract the following Report; and we may embrace the occasion to express our satisfaction, that the deliberations of the Society are to be laid before the profession periodically. The American Philosophical Society has regularly published its proceedings for the last three years; and the Academy of Natural Sciences has done the same for a shorter period. Both Societies are, we believe, highly impressed with the advantages of a course, which has been found so serviceable to the true interests of science elsewhere; and we are satisfied that the experiment cannot but be successful in the case of the Institution whose first 'Summary' is now before us.]

In presenting the Annual Report on Surgery, the writer must plead his recent appointment, and the absence of any precedent to guide him in the preparation of such a report, for the defective manner in which the duty is accomplished.

Without attempting to enter into minute details of the various new ideas, and improvements, which the retrospect of the past year might furnish—he will merely attempt briefly to sketch, some of the more important features

which mark the present era of Surgical Science. And first it may be stated, as a general remark, that the progress of the science, in some of its departments, has been remarkably rapid within the past few years—not a few novel operations have been devised, which have added greatly to the resources of the art, and have tended to elevate it in the scale of importance. A gradual advance is also apparent, in the principles which regulate the treatment of surgical diseases.

The office of inflammation, as a means of repairing injuries, or in other words, the distinction between inflammation, as a destructive process, and as a means of cure, appears to be now generally understood and appreciated.

The necessity of counteracting the sudden impression produced by violent injuries, by the use of opiates, stimuli, and other appropriate constitutional measures, is also generally conceded—as well as the importance of supporting the system, by nutritious diet and tonics, during the process of reparation, in extensive surfaces.

Opium, as a means of allaying pain, is also very generally employed in the treatment of surgical cases and before operations; the dread of its stimulating properties, once so general, having nearly passed away, at least within

the sphere of our inquiries.

Simplicity of dressing and apparatus in the management of wounds, fractures, &c., seems to be preferred to complicated contrivances; tight bandaging is less employed than formerly; while rest and position are more

urgently insisted upon.

Much attention has recently been devoted by surgeons to the constitutional treatment of surgical diseases, and many improvements have been introduced, which have rendered a resort to painful and mutilating operations less frequent. The scrofulous affections of the glandular system, which form a large class of tumours, as well as diseases of the joints, and other portions of the body, are treated with more certainty of success than formerly. The introduction of iodine and its preparations has been supposed by many to have contributed greatly to this result. Without controverting this point, it may perhaps be affirmed, that the more rational and comprehensive views which prevail in reference to the influence of hygienic measures in counteracting the tendency to scrofulous diseases, and in averting their progress when formed, have had a most salutary effect upon the practice. Much discussion still prevails in reference to the treatment of syphilis. The mercurial and non-mercurial practice, as applied to primary chancres, have each powerful advocates, and many facts are adduced in corroboration of both systems.

The advocates of the latter method, are said to be gaining ground in France and England, and not a few are to be found in this country. In the treatment of secondary symptoms, we believe, however, that mercury is

cautiously employed by both classes of practitioners.

The publications of Ricord of Paris, on this subject, have exerted a powerful influence on modern opinion, both in Europe and in this country. This surgeon has devoted himself with peculiar assiduity to the investigation of the nature and treatment of syphilis. His opportunities for this purpose have been ample, and perhaps it may be said, unsurpassed by any of his contemporaries. He has charge of a large venereal hospital, with an average number of 150 patients, besides many out-door patients, together with a very extensive private practice in this class of affections. The opinions of such a man are certainly deserving of marked attention; and we cannot more appropriately carry out the intentions of the present Report, than by presenting a brief abstract of them, as derived from an intelligent medical friend, Dr. Lang, who, but a few months since, enjoyed the advantage of instruction from this eminent teacher.

M. Ricord divides syphilis into three classes of symptoms, viz.: the primary, the secondary, and the tertiary. He has incontestibly shown, by inoculation, that of these symptoms the primary alone are contagious, the others

being capable of being transmitted by inheritance alone. The primary symptom, chancre, in some of its forms, ought never, according to Mr. R.'s system, to be attacked by mercury in any form, but should be treated by local means. Should the patient apply to the surgeon within the first five days of the existence of the chancre, he should attempt its destruction by cauterisation, which should be as deep as prudent, in order, if possible, to convert the chancre into a simple ulcer. If he does not succeed in this, or if the disease has existed a longer time than that mentioned, he should attempt, by frequent superficial cauterisations, and dressings with aromatic wine, gradually to modify its surface, and in this way he will usually cause the ulcer to heal without any constitutional infection. Mr. R. thinks the chances of secondary disease are much increased by the administration of mercury. The reasons he gives for this are, that mercury has a powerful antiplastic effect, and thereby prevents the healing of the chancres, and moreover, that it stimulates the absorbents to carry the virus into the system. M. Ricord asserts that there is no authentic case on record of a chancre, destroyed within the first five days of its existence, giving rise to constitutional symptoms. Under the head of chancre, are of course included those ulcerations which follow the opening of virulent buboes. Nothing is of greater importance in the treatment of chancre, than frequent dressings, as the pus acts, if allowed to remain, as a permanent cause of disease; the dressings should, therefore, be renewed three or four times a day, or even oftener, according to the abundance of the suppuration.

In the regular uncomplicated chancre, the local treatment usually suffices, but should it have a tendency to become indurated, the induration frequently prevents cicatrisation, and even if it does cicatrise, the induration remaining, the patient cannot be considered as cured. M. Ricord considers the induration as an evidence that the constitution has become affected, and, in order to prove this, he frequently leaves a large number of those in his wards who are affected with indurated chancres, without general treatment, and sooner or later the secondary eruption makes its appearance, although in many cases the chancres had healed, leaving the induration which only yielded to the treatment for the secondary affection. If this position of M. Ricord be true, and it would seem to be so from his experiments, it is easy to account for the assertion of Hunter, that every truly syphilitic chancre must be followed by the general infection unless treated by constitutional remedies. As Mr. Hunter considered the indurated chancre as the only

one truly syphilitic, he and M. Ricord are of the same opinion.

The phagedenic chancre is a variety which Mr. R. has found the greatest difficulty in curing. He says that he has known it to last for years without, however, ever giving rise to the secondary disease, unless it has become indurated, which he considers a fortunate thing, as it will then yield to the general treatment. During the time Dr. Lang was attending the Hospital, there were several phagedenic chancres in Mr. R.'s wards, which had resisted every kind of treatment usually employed, some of them had lasted from six to eight months. Having heard something of the treatment of chancres by the tincture of iodine, he determined to apply it in these cases, and he was delighted to find that without exception they all improved under its use, and in a very short time were all cured. This led him to make a systematic course of experiments on the use of this preparation in chancres in general; his results did not, however, show any particular efficacy in cases of common chancre, but where there was any tendency to a phagedenic character its employment was followed by the happiest results.

Secondary Symptoms. The secondary symptoms, according to M. Ricord's division, includes all that well known class of diseases of the skin, and mucous membranes of the mouth, nares, &c. which closely follow the primary affection, such as maculous, papulous, squamous, and pustulous eruptions, mucous tubercles, &c. &c. &c. When the chancre becomes indurated, he thinks it a sufficient evidence of the contamination of the consti-

tution, and immediately commences the mercurial treatment, united to the use of sudorifics, particularly sarsaparilla, which, however, he thinks has but little effect, and he only gives it on account of the vulgar prejudice in its The form of mercury that he prefers for internal administration is the protoidide, which he gives in pills, containing one grain each. He commences by one pill every evening, and gradually increases if he finds that the dose is not sufficient; never, however, increasing as long as the patient is benefited by the dose he is giving. Salivation, he thinks, should by all means be avoided, and if the mouth becomes affected, the remedy should be suspended, to be recommenced when the salivation is cured. In addition to the general treatment in the mucous tubercle, M. Ricord uses a wash of the solution of chloride of soda (Labarraques) and then sprinkles the tubercles with dry calomel; he considers this as a truly specific treatment, and usually cures the local symptom by it in the course of a fortnight. In syphilitic iritis, with the mercury should be used antiphlogistics, belladonna, and in fact, all the remedies used in the same disease when not dependent upon Opium is much used by Mr. R. wherever there is irritability or syphilis.

pain accompanying any symptom.

Tertiary Symptoms. This class of symptoms is generally developed very long after the primary disease; some of the cases occur even after the lapse of twenty or thirty years. The most common tertiary symptoms are, deep seated tubercles of the skin and mucous membranes (syphilitic lupus), osteocopic pains (syphilitic rheumatism), periostitis, osteitis and its consequences, caries and necrosis, nodis, &c. &c. M. Ricord says that the mercurial treatment, which is of little use, and often even hurtful in the primary disease, during the period of progress, becomes a powerful agent as soon as the induration commences, and shows its greatest efficacy when the characteristic secondary affection is at its height, again losing in a great measure its curative properties in the tertiary symptoms. The medicine which he considers as specific in this class of symptoms is the iodide of potassium, and in many of the symptoms it has effected a most rapid cure. Frequently Dr. Lang has seen patients enter the Hospital, who had suffered for months the most intense agonies from syphilitic rheumatism, rendering sleep almost impossible, and who, by the use of this medicine, have generally been relieved in the short space of four days, and generally within a week. Another of the symptoms in which it has appeared to be particularly beneficial, is the deep ulceration of the throat which follows the submucous tubercles of this part, and so frequently carries away a great part of the soft palate. The progress of these ulcers is generally stopped in the course of two weeks, and they then speedily heal. M. Ricord usually commences with this medicine in the dose of thirty-six grains, and increases it eighteen grains about every four days, provided its effects are not produced. His mode of administering it is in solution of hop tea made with an ounce of hops to the pint of boiling water, which is allowed to infuse for four hours; he then adds thirty-six grains of iodide of potassium, which is taken in the course of a The only effect produced by the medicine besides the cure of the disease, is an increase in the appetite of the patient. In a few rare cases it will produce a little gastric irritation or a diarrhea, and the dose should then be lessened. It is used in all the tertiary symptoms with great benefit, but in those which I have mentioned its effects are surprisingly rapid.

There are some cases of constitutional syphilitic disease, which cannot be classed either with the secondary or tertiary symptoms, but partake of the character of both: these cases are most advantageously treated, according to Mr. R., by combining the mercurial treatment with that by the iodide of

potassium.

During the past year several new operations for the cure of deformities

have been introduced amongst us.

Much attention has recently been bestowed upon this branch of Surgery, especially in Germany, where the operations referred to have originated—

and so important are the results of these investigations deemed, that the relief and cure of deformities has been erected into a speciality under the

name of Orthæpedic Surgery.

The division of tendons, muscles, and fasciæ, is now extensively practised in cases where mechanical measures alone have heretofore been relied on. Many cures are reported as having been performed, in the several varieties of talipes or club foot, by division of tendons which it is thought would have resisted mechanical means, or would have been a much longer time under treatment, if trusted to these means alone. On the other hand, it has been asserted, that a properly constructed apparatus will accomplish all the ends which the division of the tendon can effect, in a period equally short, and with less injury to the limb. Without hazarding the expression of an opinion on this subject, it may safely be asserted, that much of the evidence on both sides of the question lacks that certainty and phisolophical accuracy which should distinguish medical testimony.

Cases have been reported as cures, long before sufficient time had elapsed, for the ordinary operations of nature to effect those changes in the form and of the limb, to adapt extensive surfaces which had been distorted from birth, to such a condition, as could alone justify us to pronounce the case as

cured.

Many surgeons, charmed with the novelty and simplicity of the operation of dividing a tendon, and delighted with its immediate effects, have been led into hasty reports of success, which perhaps their more mature consideration would scarcely justify. It is by time and more enlarged observation alone, that the value of this operation can be tested, and that its claim to be

ranked amongst the improvements of Surgery can be established.

The method of operating now generally pursued was devised by Stromeyer, of Hanover, and is certainly both sale and ingenious. The operation of dividing the tendo achillis is not new; it was first performed under the direction of Thilenius, an Italian, in 1784, and was repeated by Satorius, Delpech, and Stromeyer. The latter surgeon has, however, been chiefly instrumental in awakening general attention to it, and in extending the cure of other deformities.

Dr. Detmold, formerly of Hanover, now of New York, was amongst the first who operated in this country, and by his report of cases published in the American Journal of Medical Science, for May, 1838, the attention of American surgeons was generally awakened to the subject. From that period, to the present time, the operation has been extensively practised, both here and abroad, and many reports of its results have been published.

The division of muscles has been practised in the deformities of the lower extremity, besides club-foot, as also in that distressing affection called

wry-neck.

Another operation which has excited a very general interest, is that recently devised by the celebrated Berlin Professor, Dieffenbach, for the cure

of strahismus.

The account of this operation reached us about the middle of the past year, since which period it has been practised in a great number of cases. The results are said to be most gratifying, and the failures rare. The testimony afforded upon this subject, has also been of a doubtful character, many cases having been reported through the newspapers and other unprofessional channels, before sufficient time had elapsed, to test the actual results of the operation. From reports which can be relied on, however, there seems to be no doubt that some cases of strabismus have been cured, and that the operation may be ranked among the improvements of modern Surgery; whilst it is equally true, that its indiscriminate application to all cases, is absurd and highly detrimental to the best interests of science.

It is also to be remarked, that the short period which has elapsed since the introduction of the operation, does not enable us to judge with precision of the ultimate effects which the division of one or more muscles of the eye may have upon the actions of the rest. May not the division of the internal rectus, for instance, produce a tendency to eversion of the eye-ball, under the action of the opposing muscle, long after the immediate effects of the operation have passed over? It is said, that this result has occurred in some instances. How far it is to be apprehended in other cases, time alone must determine.

We shall notice one other operation of still more modern date, being the product of the present year. We allude to the operation for stammering, also devised by the Berlin Professor, Dieffenbach. This consists of an incision carried completely through the tongue at its root. Three methods are described by the Professor. First: The transverse horizontal division of the base of tongue. Secondly: The subcutaneous transverse division, leaving the mucous covering undivided. Thirdly: The horizontal division, with excision of a wedge-shaped portion of the tongue. All of these methods were experimented upon, and the last alone considered as adequate to the end in view.

When we consider the extreme vascularity of the tongue, together with the great difficulty of arresting hemorrhage issuing from it, we need not wonder that extensive operations upon this member have ever been regarded by surgeons in a serious light, and justifiable only in cases where the life

of the patient is in jeopardy.

It is, therefore, truly surprising, that an operation so formidable as that under consideration should be attempted for the relief of a defect, extremely inconvenient and distressing, it is true, but not injurious to the health of the individual. A defect too, which, in a large proportion of cases, is dependent upon habit, or upon peculiar states of mind, and is to be remedied by a protracted system of mental and moral discipline, with appropriate vocal exer-

cises, rather than by a resort to so dangerous an expedient.

The inventor's own estimate of the dangers of the operation are thus stated: "It can never be performed," says he, "by any one who has not the temperament of an operator; the hemorrhage must hold all others at a respectable distance. The extent and importance of the operation, the possible danger to life, or loss of the tongue, through a want of skill in the assistants, who may tear it, when so nearly separated, or from mortification or ulceration of its connecting isthmus—these are contingencies rationally to be feared, and which must be carefully weighed beforehand."

And yet, with these "rational fears" before him, the Professor hesitates not to recommend the operation, and surgeons of eminence, in France and England, are rash enough to act upon the suggestion, even at the risk of human life. And this too, when the results of the operation are doubtful, and before sufficient time has elapsed to pronounce with certainty upon them. No account of the operation of Dieffenbach having been performed in this country has reached us, and we hope, for the honour of American

surgery, that no respectable operator will attempt it.

In hinting thus briefly at the several new operations introduced for the cure of deformities, we cannot withhold the expression of sincere regret, that this department of surgery, which, however useful in its place, is still subordinate to the higher aims of the science, which consists in the cure of those various surgical diseases, involving the life or limbs, without a resort to the knife, should be magnified into undue importance, and seized upon by the unprincipled and ambitious, as a means of exciting popular attention towards themselves.

Within the past few years, the records of Surgery have been defaced by the most extravagant accounts of the success of tendon cutting, and other operations to cure deformities. Take the following heading as an example: "Subcutaneous section of forty-two muscles, tendons or ligaments, practised the same day, on the same person, to cure a general articular deformity, by M. Jules Guerin, of Paris."

Cases have been reported as cures long before sufficient time had elapsed

to pronounce them as such, according to the fixed cases of nature and the legitimate deductions of reason. Thus it is, that the confidence of the profession on medical testimony is weakened, and the permanent progress of the science is impeded.

We cannot close this subject, without a brief allusion to several novel operations, which have originated in our own city, although they do not be-

long to the particular period under review.

We shall first designate the operation of Dr. Rhea Barton, for the cure of a most distressing deformity of the lower extremity, from inflammation of the knee joint, resulting in anchylosis. This operation has excited the admiration of surgeons both here and abroad, and may well be ranked among the recent brilliant triumphs of surgical skill; it consisted, as is generally known, in excising an angular portion of the osofemris, a few inches above the knee joint, the apex of the triangle, being on the lower surface of the bone, and the continuity of its shaft being preserved by a thin ledge of bone, which was left untouched.

The loss of this triangular piece, presented of course two cut surfaces of bone, and a considerable vacuity, increasing in width from the apex to the base of the triangle; these two surfaces were now gradually approximated, and as they approached each other, the leg, which was bent at right angles with the thigh, was extended; union between the bony surfaces took place, and, as it progressed, the limb was placed in a position occasioning the least deformity and inconvenience to the patient, and enabling him to use it with

facility, for all the purposes of locomotion.

We do not attempt here an accurate description of the operation, but must refer the Fellows to the American Journal of Medical Science, in

which a full report of the case will be found.

A most ingenious operation for the cure of recto vaginal fistula has also been devised by the same surgeon, within a short period, for an account of which we must refer to the same Journal.

BIBLIOGRAPHICAL NOTICES.

Reports, &c. on Insane Asylums.

We have received interesting and valuable reports from some of the excellent establishments for the Insane in this country; and by the kindness of a philanthrophic friend, who has recently visited England, we have been favoured with the excellent work of Jacobi and the Annual Reports of some of the Lunatic Asylums of Great Britain; each of which merits a

passing notice.

We have often had occasion to remark—in the pages of this Journal and elsewhere—on the signal success which has attended the skilful and benevolent exertions of those under whose direction different insane institutions of our country are happily placed, and although doubt may exist in regard to some of the statistical details that have been laid before the public from time to time by too enthusiastic superintendents, the number, capable of being restored to reason, when placed at an early period under appropriate treatment, is so considerable, that our ancestors—a hundred years ago—if permitted to revisit this earth—would be compelled to esteem the statements absolutely incredible.

The first report to which we shall draw attention, is that of the Pennsylvania Hospital for the Insane, which is drawn up by the able Physician of the Institution, Dr. Kirkbride. It is a part of the city Pennsylvania Hospital, and is a noble establishment, erected on the western side of the Schuylkill for the reception of the Insane exclusively. The Report before us contains a detailed account of the operations of the new hospital during the year 1841; and to it—as being the first Report—is prefixed a short sketch of its history, buildings, and organisation. Of the latter we can only say, that they are admirably adapted for the purpose, and personal observation enables us to depose to the excellence of the medical and economical management. A beautiful view of this capacious and imposing structure is prefixed to the Report.

The number of patients admitted during the year was 176; of these there were discharged or died 61, and 115 remain.

Our space will not permit us to do more than extract Dr. Kirkbride's judicious remarks on the interesting subject of "Restraint" in the treatment of patients.

Although our improved accommodations, and increased facilities for controlling the Insane, have enabled us, in many cases, to dispense with means of restraint that had previously been deemed necessary,—it is a pleasant reflection, that none but those of the mildest character have for a long

period been employed in the Pennsylvania Hospital.

The year 1792, which witnessed the noble labours of Pinel, in striking off the chains of the maniac, and abolishing the abuses which existed in the French asylums,—was also the period at which members of the Society of Friends in England, united in establishing the "Retreat" at York, which has since been so justly distinguished, and from which, soon after its foundation, emanated a code of moral treatment, which even at this day can hardly be surpassed.

From the active interest felt in the Pennsylvania Hospital, by members of the same religious body—the mild and rational system pursued at the Retreat was soon adopted in the former institution,—long indeed before a reform was more than thought of, in many of the establishments of a simi-

lar kind in Great Britain.

It is on this account that we are not able to present such a striking picture of abuses corrected, and of reforms introduced, as have, in other places, within a few years, been brought before the notice of the public. In Pennsylvania, during a long period, these abuses, and the imposition of violent and uncalled for means of restraint, have been confined to the jails and alms-houses of the Commonwealth; and their existence, even there, has exacted from the Legislature a provision which, it is to be hoped, will ere long place all the poor, and the so called criminal insane, in accommodations of a superior order, and where only the most enlightened treatment will be pursued.

Simple seclusion in chambers properly secured, has been resorted to during the past year, in by far the greater number of cases that have appeared to require restraint of any kind. In others, leather wristbands, secured by a belt around the body, or mittens of the same material, or of canvass, have been employed, in rare cases, with a soft band about the ancles, and two patients have occasionally been kept on their beds with much advantage, by an

apparatus also of leather, but admitting of much freedom of motion.

The so-called "tranquilising chair" has not been seen in our wards, nor

¹ Report of the Pennsylvania Hospital for the Insane, for the year 1841, with a Sketch of its History, Buildings, and Organisation. By Thomas S. Kirkbride, M. D., Physician to the Institution. Svo. pp. 46. Philadelphia, 1841.

is the muff or strait-jacket among our regular means of restraint. The latter contrivance was used in two cases—only because in our anxiety to prevent a dependence upon apparatus for restraining violent patients-we had little sent from the old Hospital; and as it happened, at that time, there was nothing but the jacket that could be used for these individuals.

With the exceptions just indicated, no species of personal restraint has been resorted to, but those previously mentioned—and of these the use has been comparatively rare. For nearly three months after opening the house, not an article for restraint was used in the Hospital. We have frequently, during a whole fortnight, had a family of more than one hundred patients, without any kind of restraint upon the person of a single individual—not more than two or three confined to their rooms, and not more than half a dozen who were not able to take their meals in the dining rooms, at tables regularly furnished with crockery, knives, forks, and glasses.

From this freedom of action, and from these indulgences, we have found nothing but advantage, and encouragement to promote still less dependence upon restraining apparatus, as a means of controlling the Insane. To save the attendants trouble or labour is never admitted as a reason for its application,—the positive benefit of the patient is the only one, that is sound or

justifiable, except under very peculiar circumstances.

We allow restraint to be allowed, only, by order of one of the physicians—and even the seclusion of a patient is to be promptly reported.

We have not dispensed with all restraining apparatus, because, under some circumstances, mild means of the kind are much less annoying to the patient, and effect the object in view with less irritation and more certainty,

than the constant presence of even the best instructed attendants.

The great objection to the employment of restraint, and the positive injury produced by it, does not come so much from its application, as from its abuse, by being too long continued. Restraint or simple seclusion may be required for a week or a day, or it is possible that a single hour will be more beneficial than either; - and it ought never to be forgotten, that when either ceases to be useful, from that moment it becomes positively injurious.

It is to this too long continued seclusion and restraint, we fear, that we are to attribute the large number of chronic patients that are met with, to-

tally careless of their persons, and with habits the most disgusting.

In this institution we have found upon releasing patients, whose hands had been in muffs for months or years, that they became less careless of their persons—improved in their general behaviour, and more cleanly in their habits. Two patients who had been chained in distant countries, have never required restraint of any kind; several who were represented as dangerous have regularly gone to the table, and used knives, forks, and glasses, without accident of any kind; and constant attention, night and day, has nearly cured some of the bad habits which had been of such long continuance as almost to preclude the hope of amendment .- p. 36.

The Report is drawn up with great care and commendable caution, and although Dr. Kirkbride dwells properly on the importance of the Insane being placed as early as possible under appropriate management, there is no attempt, by plausible statistics, to establish an astounding per centage of cures. There is reason, indeed, to believe, that these statistical evidences, so often afforded, are fallacious when closely inquired into, and that it must always be a matter of difficulty to fix upon the exact ratio of recoveries. Patients are detained in most institutions only so long as their friends desire, and are often withdrawn before the question of curability can be settled. A most erroneous inference might, therefore, be deduced from a simple inspection of the numerical statements of admissions and discharges. This has been properly animadverted upon by Dr. Kirkbride, and also, we are informedfor, by some accident, the Report of the past year has not reached us-by Dr. Bell, the superintendent of the Charlestown, Mass. Institution for the Insane.

The Report of the Trustees of the State Lunatic Asylum of New York 1 is especially valuable, as containing a brief account of the various Insane establishments in the United States, and the views of their medical officers in regard to treatment, &c. Comprised in replies to lettersad dressed to them by the Trustees of the New York Asylum.

The document before us contains in addition to a short and sensible Report of the Board of Trustees-' A system of rules and regulations proposed for the State Asylum at Utica, 1842,' at the head of which they place the excellent remark of Jacobi, as a motto:- "The whole system of moral treatment of the Insane may be summed up in two words, kindness and employ-MENT." To this are appended statistical tables of the number of Insane in the United States, and in the State of New York, especially. The appendix, which forms more than two thirds of the document, is chiefly formed of the description of the chief asylums in the United States before referred to.

The Report is a useful addition to the library for future reference in regard to the condition of the chief lunatic asylums of the country, and the existing views in regard to the management of this unfortunate but interesting class of our population.

The Reports of Dr. Woodward, and of the excellent Institution of which he is the superintendant, 2 have done much to awaken attention in this country to the importance of a better management of the Insane, and to the erroneous notions which at one time—and even at a very recent period—prevailed in regard to them. The present Report exhibits all the ardour and enthusiasm that characterise its predecessors, and is an important contribution to the medical history of Insanity.

In the course of the past year, there were in the Hospital 399 patients; at the commencement of the year, 236, admitted in the course of the year, 163; remained at the end of the year, 232: of these last, 33 were cases of less duration than one year, and 199 of longer standing. Of 167 cases, discharged from the Hospital during the year, 68 were cases of less duration than one year; 62 recovered; 2 improved, and 4 died. Of 99 discharged, which were of longer duration than one year, 20 recovered, 34 improved; 37 were discharged as harmless and for want of room, and 8 died.

The Report of the County Lunatic Asylum at Hanwell, Middlesex, England, 3 comprises the Report of the skilful and benevolent physician-Dr. Conolly-who has the medical charge of it. Like the Reports of our own excellent institutions, it contains tables of the causes, &c. of the malady in

¹ State of New York, No. 20. In Senate, Jan. 12, 1842. Report of the Trustees of the State Lunatic Asylum, with the documents accompanying the same, pursuant to the Act of the Legislature, passed May 16, 1841. 8vo. pp. 233. Albany, 1842.

2 Ninth Annual Report of the Trustees of the State Lunatic Hospital at Worcester,

Dec. 1841. 8vo. pp. 102. Boston, 1842.

The Fifty-fifth Report of the Visiting Justices of the County Lunatic Asylum at Hanwell. Small 8vo. pp. 123. London, 1840.

the different patients under treatment, of whom 213 were admitted in the year ending September 30, 1840.

The second part comprises the views of the superintendant as to the general management of the Insane, which are the result of enlarged observation and rare philanthropy. Dr. Conolly is well known as the energetic advocate of the system of non-restraint.

To this excellent charity is attached the "Queen Adelaide Fund." which was instituted with the view of assisting those who are discharged from the Institution cured, and whose condition is generally, under such circumstances, in the highest degree destitute. From the Report of a Committee now before us, it appears, that in the year 1840, the stock of this fund amounted to 4000 pounds.

The Report by Mr. Tuke, of the Retreat near York, England, 2 is chiefly of a business character. It contains, however, some tables of the admissions, recoveries, &c. since the time of its institution. The average number of Insane residents during the year 1840-41, was 91.3. The average of recoveries per cent. of the admissions from 1796 to 1841, is estimated at 50.35, the mean annual mortality, at 4.60 per cent.

The work of Dr. Jacobi 3 is excellent, and ought to be in the hands of every one who is concerned directly or indirectly in the management of the Insane. We were already familiar with the author's excellent article, Irrenanstalten in the 19th vol. of the Encyclopädisches Wörterbuch, der medicinischen Wissenschaften. (s. 62. Berlin, 1839,) and are glad to observe his views are expanded in the work before us.

The introductory observations by Mr. Tuke are likewise full of interest,

Bell on Regimen and Longevity. 4

The author of the volume before us has been long known as a writer on the important subject of Hygiène; and most of his adopted views, we apprehend, have already met with the support of his professional brethren. On one subject only, many may be disposed to decline accompanying him so far as he goes—we mean the temperance cause—which we think he not only at this time, but always has been, disposed to push to ultraism. We may be in error, but it appears to us that the great cause which Dr. Bell-and every philanthropist must be with him-has at heart, is injured by this course; and

² State of an Institution near York, called the Retreat, for Persons afflicted with

Disorders of the Mind. 12mo. pp. 16. York, 1841.

3 On the Construction and Management of Hospitals for the Insane; with a Particular Notice of the Institution at Siegburg. By Dr. Maximilian Jacobi, translated by John Kitching. With Introductory Observations, &c. By Samuel Tuke. 8vo pp. 300. London, 1841.

4 On Regimen and Longevity: comprising Materia Alimentaria, National Dietetic Usages, and the Influence of Civilization on Health and the Duration of Life. By John Bell, M. D., Lecturer on Materia Medica, Fellow of the College of Physicians of Philadelphia, Member of the American Philosophical Society, &c. &c. 12mo. pp. 424. Philadelphia, 1842.

A List of the Subscribers to the Queen Adelaide Fund, for the Relief of the Destitute Insane on their Discharge from the Hanwell Lunatic Asylum, &c. &c. Small 8vo. pp. 28. London, 1840.

that there is more danger from the effort to prove too much, than from leaving the argument even to a certain degree imperfect.

Of the moral and physical evils resulting from the abuse of alcoholic drinks no one can be more convinced than ourselves; but we have yet to be satisfied, that their prudent use must always be injurious. Dr. Bell affirms that they are not necessary for health; but the same may be said of numerous other articles of the materia alimentaria. In some of their forms, they certainly add to man's pleasure and enjoyments, and hence we esteem it but natural that he should have recourse to them under prudential restrictions, and believe that they can only be injurious when indulged in too copiously. The argument, that they are necessarily excitant, is not worth much; for we believe that the digestive function is better executed, and the whole frame more perfectly nourished, under occasional excitement—provided always that excitement be within due limits—than when all is carried on monotonously. Hence, change of diet becomes indispensable to plenary health, and is admitted to be so by all physiologists; thus acting in a manner analogous to vicissitudes of climate, which—when within certain limits—are, doubtless, we think, necessary for plenary mental and corporeal develop-

Dr. Bell is, however, rigorously opposed to alcohol in every shape. Thus: "Nobody believes, that their dilution [opium and quinine] or mode of combination causes any specific change in their properties, or that any modification of this kind will fit them for daily and habitual use by persons in health. It is reserved for the friends of alcohol to advance an exceptional plea in its favour, by an attempt to persuade us, that what in its purity and strength is a violent poison, becomes, by dilution and mixture, a safe and healthful beverage. The time was, still is in the opinion of many, when a dilution of alcohol, by the addition of an equal quantity of water and a slight flavouring with some essential oil, as that of barley, made it quite safe and proper. Now, however, in the opinion of an immense number of persons, this degree and fashion of dilution, being that in which distilled liquors are generally manufactured, does not prevent alcohol from poisoning the frame and perverting all the faculties of the mind, as poisons generally do. Whiskey and brandy and gin and rum drinkers and sellers are getting out of favour, and for stronger reasons than ever yet brought a class into disrepute. But they leave behind them a large and influential body, who, whilst disclaiming against any connection with or sympathy for them, hold very much to the same dietetic observances, by making use of the same intoxicating and poisonous element, only in smaller proportions and somewhat differently combined. These persons abjure alcohol in the proportion of 50 or even 45 per cent., as it comes in the shape of ardent spirits or distilled liquors, but they battle stoutly for the proportion of 25 down to 10 per cent. in the shape of wines. There is yet a third set at their heels, or the moderately alcoholic, who come in as plain, practical farmers, or honest manufacturers and labourers, and who quietly assure us, that they will be content with alcohol in drinks at the low rate of from 9 to 1½ per cent., in the shape of cider and beer.

"All these three divisions are, however, in fact, arrayed in the same cause, and adopt the same banner, though with different devices; and they resemble much more different divisions of the same army than opposing forces. They all procure alcohol from the same source, and by the same primary process, viz. of fermentation. The manufacturers of ardent spirits have contrived to procure it in greater abundance by distillation from fermenting mixtures; but, in requital, they give back a portion to the makers of wines, in order to strengthen these latter liquors, and adapt them to the still pre-

vailing tastes for something rather more potentially alcoholic. Between the wine-press and the still there is then a close and almost inseparable connection, and so long as the former is in active operation, the latter will never be idle. From wine is educed spirits of wine, as alcohol is often called. Of the 924 millions of gallons of wine made in France, it will be remembered, that more than a seventh or 141 millions were manufactured into brandy (p. 223); a portion of which is used in giving more body to the wine that is reserved for exportation. Nor is French brandy alone used for this purpose. Mr. McCulloch, in speaking of the Catalonian wines, tells us that the exports from Barcelona to Cuba, are 12,000 pipes of wine and 3000 pipes of brandy; to South America, 16,000 pipes of wine and 6000 pipes of brandy; to the North of Europe, 2000 pipes of wine and 2000 pipes of brandy. So that for every three pipes of wine, there goes with it more than a pipe of brandy; both of them the product of the juice of the grape. The author just cited, adds: A good deal of brandy is sent to Cadiz and Cette; most part of the former finds its way into the wine vaults of Xeres; and the latter being conveyed by the canal of Languedoc to the Garonne, is used in the preparation of the wines of Bordeaux."

And again: "The wine-drinker in Great Britain and the United States goes beyond the grog-drinker: the latter takes simply spirits and water, whereas he takes spirits and wine. By the standard of temperance, it will not be difficult to decide their respective merits; on the score of health, I would rather run the chances of the drinker of spirits and water, than of him who drinks spirits and wine. The probable longevity is in favour, as far as my observation and reading extend, of the grog-drinker. But from the imitation of either, we ought all devoutly to exclaim, Good Lord deliver us!"—p. 348.

The author has, at some trouble, compiled interesting details of various national dietetic usages, and of the alimentary value of different articles of diet, and has cited statistical proofs—which will astonish the majority of our readers—that the people of France in their use of wine, cider, beer and brandy for drink consume, per individual, more than the people of Great Britain and Ireland per individual. We must refer, however, to the volume before us for the details on this subject.

In the haste of preparing the work for the press—which we know was urgent—some errors have escaped the author, such as "algæ or seed weeds"—'blanc mange for blancmanger, Handb. d'Chem, Compestus Med. Ther. for Conspectus Med. Ther., Rukman for Rickman, pro rota for pro rata, &c.;—but these are trifles. The work contains a large mass of usefulinformation, and we are happy in being able to recommend it to the perusal not only of the profession but of the laity.

Professor Wright's Introductory Lecture.2

There is much good ethical instruction contained in this lecture, conveyed, however, in a style which is much too florid and familiar to our taste, although such may not be the sentiment of those for whose information it was penned.

We apprehend, that the following remarks apply to other meridians than

the one in which they were delivered.

"There is another subject of some delicacy, to which I cannot fail to

What does the author mean when he affirms that the faculties of the drinker of

malt liquors " are dull and sodden?"

2 A Lecture delivered to the Students of the Medical College of Ohio, at the opening of the Session, 1841-42. By M. B. Wright, M.D., Professor, &c. 12mo. pp. 14. Cincinnati, 1841.

give a passing notice. A young man about to leave his home and his friends, in search of a situation favourable for practice, is often supplied with more gratuitous advice than he can turn to good account;—and much of this is given by those, whose judgments are too often controlled, by the honest, but mistaken zeal of their hearts. 'When you have selected your location, join our church, and secure its patronage,' is the subject of every-day council; and it is not often passed by unheeded, as many act upon the principle, that professions of goodness supply defects of knowledge. But, gentlemen, a declaration of wisdom upon important subjects of which you are ignorant, is one sin; hypocrisy in religion, another; and when combined in the same individual, unspeakably detestable is his character.

"Do not misinterpret my meaning,—do not understand me as objecting to church-membership, or to your becoming exemplary christians. Would to God that every one of us were true disciples of that best of all Physicians!—that when we had failed to impart healthful action to the mortal body, we

might aid the spirit in its joyful flight to eternity!

"Happy is the man who can discern the beauties of pure religion—who feels in his heart its persuasive, soothing influence, and who reposes in safety upon its promises and hopes. There is nothing which more effectually controls the impetuous nature of man—nothing better calculated to develope and strengthen his affections—nothing, in a word, more efficient in making him what he should be. The immortal spirit, like Noah's dove, flies everywhere, without being able to find one spot upon which to rest its weary

wing, until it returns to the place whence it issued.

"Great, I say, is the happiness of the true christian—but, doubly cursed will he be, who aims to counterfeit the very essence of his Maker, for the sake of traffic. And I would say to those who encourage such conduct, look well to your responsibilities. While you are offering inducements to the physician, to become at heart and in practice a hypocrite, you are plunging your javelin deeper and deeper into the vitals of undefiled religion. Every day's observation establishes the fact, that empty professors have filled more hearts with scepticism, than the most hardened villains that ever cursed God and died! Would any man dare, whilst administering the holy sacrament, to say, in words 'Eat this, for it is emblematical of the broken body of your Saviour—drink this, for it is his blood—eat and drink, that you may the more effectually impose upon your fellow men?' No, he dare not. His tongue would become paralysed, and withered in the effort; and yet, it is to be feared, he says this too often in effect.'

Forry on the Climate of the United States.

This is an excellent contribution towards the medical statistics of this country—based chiefly—as the author states in the title—on the records of the medical officers of the army. The work is divided into two parts,—the first comprising "Researches in Elucidation of the Laws of Climate in general, and especially the Climatic Features peculiar to the Region of the United States;" and the second embracing "Researches elucidating the Endemic Influences peculiar to the Systems of Climate developed in Part 1st."

With most of the author's views we entirely accord; indeed, the work affords evidence, that our own inquiries have received a portion of Dr. Forry's attention. On the subject, however, of the vegetable origin of malaria, we are compelled to differ from him: his facts and arguments on this subject are not, indeed, more conclusive than those of his predecessors, whilst he adduces, we think, sufficient testimony against the soundness of his own

The Climate of the United States and its Endemic Influences: based chiefly on the Records of the Medical Department and Adjutant-General's Office, United States Army. By Samuel Forry, M. D. 8vo. pp. 380.

views. We do not, however, on this account, the less recommend Dr. Forry's labours to the notice of our professional brethren. His work is unquestionably one of the most interesting productions that have appeared on this interesting subject.

MISCELLANEOUS NOTICES.

Jefferson Medical College.—The exercises before the Graduating Class of the Jefferson Medical School, were held on the 10th of March at the Musical Fund Hall. The Valedictory—which was able, impressive, and appropriate—was delivered by Professor Huston. The degree of Doctor of Medicine was conferred on the following gentlemen.

| * These gentleme | | eady graduates of Dartmouth College, N. H. |
|----------------------|----------|--|
| Names. | Resid. | Subjects of Thesis. |
| Horace D. Ashton, | Va. | Cynanche trachealis. |
| Otis Ayer,* | N. H. | Cirsocele. |
| Elisha Brown, | Ohio. | Acute articular rheumatism. |
| Wm. M. Byars, | Ky. | Poisoning by corrosive sublimate. |
| Robert S. Beazley, | Va. | Hepatitis. |
| James Bringhurst, | Del. | Animal magnetism. |
| Wm. S. Bishop, | Pa. | Bilious pneumonia. |
| Agrippa N. Bell, | Va. | Spermatorrhœa. |
| James D. Browder, | Va. | Necrosis. |
| Wm. T. Craige, | Pa. | Chorea. |
| Wm. E. Cooke, | | Typhus fever. |
| Frederick Crowley, | Pa. | Diaphoretics. |
| James W. Daily, | Ohio. | Intermittent fever. |
| Welding F. Dennis, | Pa. | Bronchocele. |
| Richard H. D. Ewell, | | Hysteria. |
| James E. Ford, | Va. | Endocarditis. |
| Charles Huston, | Pa. | The skin. |
| Sterne Hotchkiss, | Ct. | Acute mucous colitis. |
| H. H. Humphrey, | Pa. | Homeopathy. |
| David H. Houston, | Del. | Miasmata. |
| Clement R. Harris, | Va. | Cynanche trachealis: |
| Alfred C. Holt, | Miss. | Morbid conditions of the great sympathetic |
| , | | nerve. |
| John W. Irby, | Va. | Venesection. |
| Henry W. Johnson, | Pa. | Obstetrics. |
| George C. Jones, | Del. | Puerperal fever. |
| Oliver W. Kellog, | Ct. | Spinal irritation. |
| Charles L. Lyon, | Pa. | Gastritis acuta. |
| James W. Lisle, | Pa. | Diphtheritic membrane of croup. |
| John G. Logue, | Pa. | Scarlatina. |
| John H. Miller, | Md. | Acute bronchitis. |
| Charles May, | Va. | Compression of the brain. |
| Andrew S. McMurray, | Pa. | Qualifications and duties of a physician. |
| Gerrard F. Mason, | Va. | Physiology of the liver. |
| Robert McElrath, | Pa. | Scarlet fever. |
| John M. Nunn, | Va. | Parturition. |
| Pat. Moffit O'Brien, | Ireland. | Proximate causes of inflammation. |
| Stephen Proctor, | Miss. | Magnolia grandiflora. |
| Wm. P. Rothrock, | Pa. | Mucous enteritis. |
| D ' ' TY D | ~ | T T |

Benjamin F. Rea,

Ga.

Iced water in pyrexia, phlegmasia, &c.

Resid. Subjects of Thesis. Names. John K. Robins, Pa. Chronic endogastritis. N.J. Elijah B. Richman, Mania. Ct. Emetics. Ossian Sumner, Slater B. Stubbs, Pa. Intermittent fever. Jackson Schaeffer, Pa. Dysmenorrhæa. Practical anatomy. Michael Steck, Pa. Benjamin Smith, Pa. Amenorrhæa. Wm. Scott, Wm. W. Sweat, Pa. Variola. Surgery and Surgical practice. Me. John Schrack, Jr., Pa. Vaccina. Thomas W. Shelton, Peter L. B. Stickney, Va. Tight lacing. Medical investigation. Pa. David T. Trites, Chas. F. Williams, John H. Weir, Gillet F. Watson, Pa. Blood, and its diseases. Ala. Cynanche trachealis. Pa. Pertussis. Va. Inflammation. Chase Wiggins,* N. H. Rheumatism. George B. Weiser, Pa. Circulation of the blood. Henry M. Whitaker, Ky. Blood-letting. S.C. Strabismus. Robert S. Woddrop,

The honorary degree of Doctor of Medicine was conferred on Joseph Frazer, of Penn., and John Cooper, of Poughkeepsie, N. Y.—Total, 61.

Transylvania Medical School.—The Annual Announcement of the Medical Department of Transylvania University gives the names of 271 students; whereof there were from Kentucky, 116; Tennessee, 33; Alabama, 30; South Carolina, 23; Georgia, 11; Missouri, 11; Mississippi, 9; Indiana, 9; Ohio, 8; Virginia, 7; Illinois, 5; Arkansas, 2; Pennsylvania, 2; Louisiana, 1; North Carolina, 1; Delaware, 1; New York, 1; Michigan, 1.

At the recent Commencement the degree of Doctor of Medicine was conferred on 55 gentlemen; and the honorary degree of M.D., on 2.

It would seem, that the class of the last session was more numerous than any of its predecessors.

Medical Society of Virginia.—We have received the Constitution and By-laws of the Medical Society of Virginia, revised and amended in January, 1842. The officers for the year 1842, are Robert W. Haxall, M.D., President; John A. Cunningham, M.D., Sr. Vice-President; Socrates Maupin, M.D., Jr. Vice President; Francis B. Watkins, M.D., Recording Secretary; Richard Cary Ambler, M.D., Cor. Secretary; James Bolton, M.D., Treasurer, and George G. Minor, M.D., Librarian.

Washington University of Baltimore.—Professor Baxley.

At a meeting of the Faculty of the Washington University, held recently, Dr. H. W. Baxley was unanimously elected Professor of Surgery and Surgical Anatomy, in place of Dr. Dunbar, resigned.

We have already referred more than once in the pages of the "Intelligencer" to this gentleman's qualifications as an anatomist and a teacher, and we doubt not, that the credit, which he has already acquired in the latter capacity, will be largely extended in his new sphere for observation and exertion.

Louisville Medical Institute.—The Annual Catalogue of this Institution contains the names of 262 students: of whom there were—from Kentucky, 89; Tennessee, 81; Alabama, 30; Mississippi, 20; Ohio, 14; Indiana, 10; Illinois, 4; Missouri, 3; Louisiana, 3; Virginia, 2; Georgia, 2; Pennsylvania, 1; New York, 1; New Jersey, 1, and Texas, 1.

The degree of Doctor of Medicine was conferred on 53 gentlemen; and

the honorary degree on 4.

Physiological Temperance Society of the Medical Institute of Louisville.—We learn from the "proceedings" of this new society, with which we have been favoured, that on the 23d of December, 1841, Professor Drake presented to the Medical Class, a Constitution, which was immediately subscribed by seventy students, and subsequently by sixty-seven others, "making six more than half the class." One of the objects of its establishment is to investigate the causes, consequences, and remedies of intemperance in the use of alcoholic drinks and other narcotic stimulants; and every member binds himself to refrain from intoxicating beverages for five years after subscribing the Constitution.

The Report of the Committee, appointed to report how far the promotion of temperance should be regarded as a professional duty, is especially commendable for the avoidance of ultra sentiments, which—as we have elsewhere remarked—are apt to defeat the object of their authors. Professor Drake was the chairman of the committee.

Amongst the honorary members proposed by Professors Drake and Yandell, we notice Dr. Bell as the representative of Pennsylvania, who has certainly been a most energetic supporter of the great cause.

We would refer the members of this society to our observations on the treatment of delirium tremens, by the eclectic method on which we have expatiated elsewhere. It is a subject which falls properly within the province of a society so constituted, and involves not only physical but moral considerations of deep interest.

Dr. Bowditch on the Trichina Spiralis.—An interesting account of the Trichina spiralis a parasitic animalculum, (where does Dr. Bowditch get the word animalculæ?) is contained in a recent number of the Boston Medical and Surgical Journal, (March 30, 1842,) with drawings of the animalcule in and out of the containing cyst.

After detailing the case of the patient, Dr. Bowditch thus refers to the appearances observed on dissection; premising, that this is the first time, so far as he knows, that the animalcule has been noticed in this country.

"Appearance of the Affected Cellular Membrane.—The muscles and cellular membrane underneath them seemed literally covered with myriads of minute white lines, looking at first sight like the ova of the common fly upon decaying animal matter. The bodies seemed to be attached rather to the cellular membrane running among the fibres, than to the muscular tissue itself. They lay parallel to the course of these fibres. They had no motion, and to the naked eye looked like simple lines. I attempted to approximate to the number which probably existed in the body, supposing the other voluntary muscles were as much affected by them as those mentioned

¹ Practice of Medicine, p. 342. Philadelphia, 1842.

above (vide autopsy.) I and another individual counted the number contained in a superfices of a quarter of an inch square. Both of us counted many more than fifty. Calling, however, this number the mean for every quarter of an inch over the trunk of the body, and allowing ten layers only (which is a very small number, when we consider that not the thinnest lamina could be removed from a muscle without exposing new specimens of the same morbid phenomena) from the surface to the bones of thorax or peritoneum, we shall have as follows: $50 \times 16 = 800 = \text{number contained in a}$ square inch; $800 \times 10 = 8000 =$ number contained in solid mass an inch square and ten layers deep. Supposing the height of the adult trunk to be fifteen inches, and the circumference thirty-two inches, we have as follows: 15× $32 \times 800 \times 10 = 3,840,000$, contained in the parietes of the trunk of the body. Supposing (what is still a moderate estimate) that the extremities taken together contain as many more, we have at least 7,680,000 of these minute bodies contained within the skin of this patient. Our wonder augments when we find that each of these bodies contains a minute parasitic animal!

"Microscopic Observations.—By the use of one of Chevalier's very excellent achromatic instruments, I observed as follows:—They seemed regular oval-shaped cysts, very translucent in the centre, opaque at both extremities. Upon examining very minutely, something very indefinite and circular was seen lying in the cyst. At first I was disposed to believe that this spiral was an alimentary canal, but subsequent investigation proved otherwise.-(Vide figure 1.) Upon using a higher magnifying power, we saw that while most of the bodies contained evidently a regular rounded worm-like body, others seemed opaque and yet very regular, whilst in one case the cyst had been evidently broken, and the creature had escaped from its interior.—
(Vide figure 2.) In one case I observed two animals in one cyst. Dr. Farre has seen three, but this is very rare.

"I attempted to learn the dimensions of the cyst. They were as follows: -Length, about one sixtieth part of an inch; breadth, one hundred and twentieth. Unfortunately I had no micrometer when the figures of the cyst

with the animal lying by its side presented themselves.

"My examination convinced me that there was a living and moving worm (looking like a lumbricus) contained in a cyst of very delicate texture, and containing besides its living inhabitant a gelatinous mass. It was evidently alive on Saturday evening (patient having died on Tuesday, and the autopsy having been made on Wednesday). Most were very quiet, and but two were seen to move by several observers. At times the whole body stirred, causing an enlargement and diminution of the spiral shape. Usually only one extremity, however, was slightly but very distinctly agitated. When there was most motion, the gelatinous-like substance already mentioned was moved likewise. The length of time that life continued after removal from the body of the patient, seems curious to me. Owen has mentioned the fact of life having been discovered two weeks after the death of the subject in whom they were found. I watched with great care to see if there was any internal motion of the worm itself, of an intestinal or circulatory nature, but I saw none. One of my assistants thought that he did discover something slight of the kind, but I feared at the time he was in error. I endeavoured likewise to decide upon the internal structure, but I was baffled in a great measure. I could see evidently parietes of uniform thickness through the whole length of body, and perhaps they were about one-tenth as thick as the whole body, while a mass of some regularity filled the interior."—pp. 121, 122.

Dr. Bowditch concludes his communication with a history of the researches on the nature of the Trichina that have thus far been made.

¹ Zoological Transactions, 1835. Todd's Cyclopædia of Anatomy and Physiology, Entozoa. Or Medical Gazette, Vol. XV., p. 125, for analysis of the same paper.

On Italy as a residence for the Consumptive, by Dr. Mott of New York.

The following remarks by Dr. Mott in his "Travels" contain but little that is new, but they confirm in some respects the views that are now almost unanimously entertained on the subject, and which we have urged elsewhere, (Elements of Hygiène, and Practice of Medicine.) The influences that are so beneficial in incipient phthisis are certainly not owing to mere equability of climate; for we know, that in countries in which the thermometer range is restricted tuberculosis is by no means uncommon. A climate, which is liable to vicissitudes, provided these are within certain limits, and whose general temperature is such, that the valetudinarian can take exercise in the open air every day during the winter, is the great desideratum. Doubtless, such exercise must not be carried to the extent of inducing fatigue, or undue excitement; but if these results be avoided, the thorough revulsion, caused by a change of every influence surrounding the individual is a revellent agency of the greatest importance, and after all it is to revellents that we have to trust entirely in these interesting cases.]

"It is a great error to suppose that Italy, with all its fascinations, is suited to the pulmonary invalid. The constant anxiety he feels to visit and examine the antiquities of a country that are exhaustless in variety and attractive beauty, and the intense excitement they occasion when seen, as well as the exposure and fatigue necessarily incurred in visiting them, are, from my own personal knowledge, often injurious to the health of such patients. It must, upon the slightest reflection, occur to the mind of every medical man, that hemorrhage from the lungs will be frequently brought on in such patients as we have described. A fact which we have positively known in that country, and which has aggravated the malady and expedited the fatal issue. Even where there is only a strong predisposition to an affection of the lungs, and no incipient disease, the symptoms may thereby become more speedily matured, and positive and fatal mischief be induced. But more especially where actual disorganisation exists, the exciting causes before mentioned will be attended with pernicious consequences.

"If a pulmonary [?] invalid from a colder country will travel in Italy without incurring exposure to the excitements we have mentioned, he will find its mild climate admirably suited to the mitigation of his malady; far more so, as we have already explained, than to the native Italian afflicted with these

complaints.

"In the great class of nervous affections, where much debility exists, but unaccompanied with organic mischief, and especially when unconnected with pulmonary disease, the peculiar attractions that are found in Italy are signally remedial and bracing, and invigorating in their influence upon the general health, as we have already remarked, by addressing themselves to the moral and intellectual faculties. Such an invalid may reside for any length of time in any of the delightful cities of Italy, with great profit to his health. But far otherwise with the pulmonary man: he, in our opinion, ought to pursue a very different course. His rule should be, a constant change of place, and very little attention, much less close application to the diversified novelties that present themselves in his travels. The exercise to his body in this climate is far more important to him, than having his mind engaged in fatiguing excitements. Too much care cannot possibly be paid

"As an illustration of the value of change of place for the pulmonary invalid, we may mention that the inhabitants of Lower Egypt, when threatened with disease of the lungs, resort to Upper Egypt, Nubia and Abyssinia for a change of climate, and we know with decided benefit. The inhabitants of Nubia and Abyssinia, on the other hand, when labouring under the same affections, come down to the lower or alluvial country with equal advantage.

"There has been much of romance in the pictures that have been drawn of the climate and advantages of Italy. Whatever may be the malady of the patient, he must be prepared to meet with inconvenience, which will constantly remind him of what he has lost by leaving home. Except in the capital cities, but few houses will be found with any accommodations that merit the name of what we Anglo-Americans understand by the significant word comfort. Most of them, he will find to his sorrow, are not provided even with the necessaries of life. He must, too, often expect to encounter, after a long day's travel, meagre arrangements for fire to counteract the chill of the evening, and a cold stone floor, instead of a cheering carpet to tread upon, before he can reach his not less comfortless bed.

"I must here be permitted to protest against what I deem a reprehensible, if not cruel and wicked practice that some professional men fall into, of recommending or sanctioning, and sometimes even themselves urging the poor sufferer from pulmonary disease, after all the resources of our art have failed, to abandon his home, his family and friends, with the vain hope of recovering his health in a foreign land. The moment the disease appears to be confirmed, we have believed it to be our sacred duty to advise every patient to make himself as comfortable as possible in his own country, and within the immediate circle of his own family or relations, that he may partake, to the fullest extent, and up to the last sad moments of his life, of all the rational and soothing enjoyments of their sympathies, and all the luxuries of home, rather than die in a foreign land.

"We are aware, that nothing is more common than a fallacious and flattering hope, which a pulmonary invalid is prone to indulge in, and that the future is always painted in his imagination with the warm and glowing tints and rainbow hues of a bright and glorious dawn, even when the night-pall of death is drawing its curtains around, and the unconscious victim has reached even the dark confines of the grave. And however painful to the medical attendant to do or say that which shall chill or dampen the sanguine and delightful anticipations of recovery of his patient, he has but one course

to pursue, which is, to do his duty."

Ileus cured by a Belladonna Enema. By Dr. Becker. Gazette Médicale de Paris, May 8th, 1841.)—A woman, 48 years of age, was suddenly seized with vomiting, pain in the bowels, and constipation. The vomiting became more and more fetid, and at last stercoraceous, and after five days' treatment was worse than ever. M. Becker then gave her an enema made with one drachm of the root of belladonna, which, within a very short time after its administration, put a stop to the pain and vomiting, and in half-anhour brought away a stool containing much blood. After this, the woman gradually recovered. No narcotic effects were observed from the employment of the belladonna.

On the occurrence of Nephritis with Albuminous Urine in Infants. By Dr. Charcelay.² (Gazette Médicale de Paris, 25th September, 1841.)—Dr. Charcelay describes at length sixteen cases of a disease attended with ædema, and occurring in infants shortly after birth, which he attributes to nephritis. No particular symptoms are mentioned diagnostic of this affection, excepting the ædematous state of the body, and the urine being albuminous, as he calls it. The substance, however, which he designates albumen would appear not to be such as he mentions, that though a precipitate was occasioned by nitric acid, it was soluble in an excess of the same. The kidneys were found to be the seat of vascular engorgement, and were larger and redder than usual. A cretaceous looking matter, of a reddishyellow colour, which he thought was lithic acid, was found in large quantity in the calices of the kidneys.

¹ Edinb. Med. and Surg. Jour., Jan., 1842. p. 254.

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For the American Medical Intelligencer.

ART. I.—CASE OF CATALEPSY IN THE PARTURIENT FEMALE.

By J. L. Ludlow, M.D., Resident Physician, Philadelphia Hospital.

E. E. æt. 20—rather below the ordinary height, of good constitution, and a sanguineo-nervous temperament, was taken in labour with her third child, on the 19th of February. About a month previous to this time, upon experiencing some slight pains, resembling labour pains, a physician was sent for, who—after making the requisite examination per vaginam, and the pains becoming less frequent, and not so severe as when he arrived—ordered an anodyne injection and perfect rest; by which means the patient was soon enabled to go about the wards, although now and then complaining of transient pains, which, however, were not of a character sufficiently severe

to require medical attention.

In the condition above mentioned, the patient remained until the date previously named, when I was called in. The pains, though slight, were regular in their returns, at intervals of 20 minutes. Upon making an examination per vaginam, the os uteri was very slightly dilated, though flabby and dilatable, and the neck of the womb appeared to the touch not sufficiently developed for the full time of utero-gestation. The labour advanced slowly though perfectly natural, until about 12 o'clock on the 20th, when I was summoned, in great haste, and found the patient labouring under a fit, in some respects strongly resembling catalepsy. The mouth was widely open, the neck and head thrown back, and the eyes, at first, firmly fixed upwards and backwards in the sockets, but afterwards rolling about in every direction, the patient being unable to fix them upon any object. The respiration and the pulse were perfectly natural, and the skin moist and The upper extremities, for a short time, could be placed in any position, the patient being unable to govern them. The lower extremities were not in the slightest degree affected. The consciousness of the woman remained perfect throughout, and when requested to exert herself in any manner, she attempted to do it, but in vain. During this interval of the fits she complained of heaviness about her head with tinnitus and giddiness.

I immediately opened a vein and took about 10 ozs. of blood, when it ceased flowing; applied sinapisms to the back of the neck and ears, and leeches to the temples; prescribed anodyne injections and foot-bath, and rubbed her throat with a stimulating liniment, deglutition being entirely suspended. Notwithstanding the remedies used, the fits continually recurred

with every contraction of the uterus, which contractions were, however, now at longer intervals. At this time, I made a re-examination of the os uteri, but found it not more dilated than at my previous examinations. Labour appearing to advance slowly, and the parts being not in a state to favour its more rapid progress, a consultation was asked of Dr. Huston, the consulting accoucheur to the Hospital, who, after making an examination per vaginam, recommended the os uteri to be anointed with belladonna, and a draught of Mistur. Assafætid. \$\frac{7}{3}\$ss. Morph. Sulph. gr 1-8., to be given every hour, and the Oleum Succini to be rubbed down the spine. After persevering in these remedies for some time, (the patient not being benefited, the fits recurring at the same intervals as before,) they were stopped, and the following mixture was prescribed:

Tr. Valer. Ammon. 3j.
Tr. Opii Acet. gtt. xlviij.
Camphor. gr. xxxvj.
Ext. Hyoscyam. gr. xij.
Sacch. Alb. et G. Acac. q. s.
Aquæ q. s. ut. ft. 3vj. M.

A table-spoonful to be given every two hours.

After taking two table-spoonfuls of this mixture, the uterine contractions and the pains ceased; the dose was now diminished to a tea-spoonful, and the patient merely kept under its influence. While she took this medicine, (for she had to suspend its use, on account of a slight nausea, for a day, when the fits again returned,) she had no fits, but remained perfectly well, until the night of the 27th of February, when she was delivered of a boy well formed and healthy. The patient is herself doing perfectly well, there having been no sign of a fit during the delivery, or since.

It may be proper to remark, that during her previous labours, nothing unnatural had occurred; and her life had been exempt from any thing of the kind, until her present accouchement. During the whole of the period occupied in labour, her bowels were in an open state, and her urine passed freely.

J. L. Ludlow, M.D.

March 3, 1842.

ART. II.—OBSERVATIONS ON SOME OF THE SIGNS OF LIVE AND STILL-BIRTH, IN THEIR APPLICATIONS TO MEDICAL JURISPRUDENCE. By John B. Beck, M.D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the University of the State of New York. 1

[The following observations are from one whose attention has been long and ably directed to a most important subject. They suggest great caution to the medical jurist who is called upon to pronounce in a case so full of moment to all concerned. To exhibit still more strongly the discriminating caution—the judicious doubt—that is demanded in such cases, we premise a summary of the results obtained by another excellent observer—Dr. Guy.²

"Weight of the Lungs.—1. The weight of the lungs of still-born children of the same age varies within wide limits; the chief causes of difference being the sex and the weight of the body.

"2. The weight of the lungs in mature still-born children is as follows:

greatest weight, 1661; least weight, 340; average weight, 874.

"3. The weight of the lungs in mature still-born children of the male and female sex respectively is as follows: greatest weight, 1661, 1492; least weight, 360, 340; average weight, 950, 809.

"4. The weight of the lungs in children who have respired also varies

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within wide limits; the chief causes of difference, in addition to those which affect still-born children, being the degree and duration of respiration.

"5. In children who have survived their birth one month or less, the highest recorded weight is 2440 grains; the lowest 432 grains; and the average 1072 grains.

"6. The weight of the lungs for males and females respectively, at the same ages, is as follows: greatest weight, 2440, 1745; least weight, 432,

479; average weight, 1121, 982.

"7. The weight of the lungs increases with the increasing perfection of

the respiration, but is very slightly augmented by imperfect respiration.

"S. The weight of the lungs also increases with the duration of the respiration; but appears to be less when respiration has continued more than one hour and less than twelve, than when it has lasted less than one hour.

"9. The mean weight of the lungs in mature children who have lived one month or less exceeds the mean weight in mature still-born children, by

somewhat less than one-fourth, the numbers being 574 and 1072.

"10. The average and extreme values drawn from small numbers of facts differ widely from each other, and cannot be depended upon for medico-legal purposes.

"11. The average values cannot be safely employed as standards of com-

parison, and the extreme values admit of very rare application.

"12. If the absolute weight of the lungs is employed as a test of respiration, the value obtained in an individual case ought to be compared with the average or extreme numbers obtained for the same weight of body.

"The following propositions have an important bearing on Ploucquet's

Test.

"1. The weight of the lungs both before and after respiration increases with the weight of the body; but the proportion which the lungs bear to the

body decreases as the weight of the body increases.

"2. For the same weight of body the weight of the lungs varies within wide limits, and vice versa, for the same weight of lungs the weight of the body varies within wide limits. This variation is more considerable after respiration than before it.

"3. The weight of the body in still-born children is greater than in chil-

dren born alive; the former exceeding the latter by nearly one-third:

"4. The weight of the lungs is subject to much greater variation than that of the body.

"5. The weight of the lungs is much greater in the male than in the fe-

male."

"Ploucquet's Test.—1. The proportion which the weight of the lungs bears to that of the body, like the absolute weight of the lungs, varies within wide limits; the proportion in mature still-born children being as follows: greatest proportion, 1:24; least proportion, 1:176; average proportion, 1:57.

"2. The proportion in males and females respectively is as follows; greatest proportion, 1:24, 1:36; least proportion, 1:176, 1:119; average pro-

portion, 1:53, 1:63.

"3. In children who have survived their birth one month or less, the highest recorded proportion is 1:19; the lowest, 1:132; and the average, 1:38.

"4. The proportion for males and females respectively at the same age is as follows: greatest proportion, 1:19; least proportion, 1:132, 1:96; average proportion, 1:35, 1:43.

"5. The proportion which the lungs bear to the body increases with the increasing perfection of the respiration, but is very slightly augmented by

imperfect respiration.

"6. The proportion also increases with the duration of the respiration, but appears to be less when respiration has continued more than one hour and less than twelve, than when it has lasted less than one hour.

"7. The average proportion in mature children who have lived one month

or less, exceeds that in mature still-born children; the numbers being 1:57 before respiration; and 1:38 after respiration.

"8. The proportions calculated from a small number of facts differ widely from each other, and cannot be depended upon for medico-legal purposes.

"9. The average proportions cannot be safely employed as standards of comparison, and the extreme values, though more to be depended on than the highest and lowest weight of the lungs, are of very limited application.

"10. If the average or extreme proportions are employed as standards of comparison, the proportion obtained in any individual case must be compared with the average or extreme numbers calculated for the same weight of body."

"The observations," Dr. Guy concludes, "contained in the present essay lend strong confirmation to the unfavourable opinion expressed on a former occasion of the static lung tests as tests of respiration. Whether employed to distinguish respiration from non-respiration, or respiration from inflation they are alike insufficient, except in cases of extremely rare occurrence, where we can make use of the extreme values. On the supposition that the question of inflation has no place, the static lung tests are as unnecessary as they are useless; if we have proved that either respiration or inflation has taken place, they can only be employed with advantage in the extremely rare instances just alluded to, viz. where we can employ the extreme values. Hence, then, the proposition which concludes my first essay requires to be slightly, modified, and will stand thus:—

"The static lung tests are utterly useless for all practical purposes, and ought not to be relied on in medico-legal inquiries, except in rare instances,

where the extreme values can be employed."—ED.]

In all cases of alleged child murder, one of the great questions to be established, is the fact of the child's having respired or not. As the signs by which this is to be determined are still the subject of much difference of opinion among medical jurists, it becomes important to enlarge our existing stock of knowledge, by the accumulation of new and repeated observations. With this view, I have embraced every opportunity that has been thrown in my way of examining the dead new-born subject. The following observations are founded upon the examination of ten such subjects, which I have been enabled to make through the kindness of some of my professional friends. To Dr. Wilson, formerly physician of the Bellevue Hospital, from which institution many of the subjects were furnished, I am particularly indebted. As the circumstances connected with the birth of each are known, no doubt or uncertainty can attach to the accuracy of the conclusions drawn from them.

Among the tests principally relied on to determine this question, the most important are the following:—1. The static test. 2. The hydrostatic test.

3. The state of the ductus arteriosus.

1. The static test. This test is founded on the fact, that the act of respiration causes an increase in the weight of the lungs. There are two forms in which this test has been applied. The first is by comparing the weight of the lungs with that of the body. This is commonly called Ploucquet's

test. The second is that of taking the absolute weight of the lungs.

a. Ploucquet's test. This is so called from its having been originally suggested by Ploucquet. It is founded on the fact, that as soon as respiration takes place in a new-born infant, an additional quantity of blood penetrates the lungs, in consequence of which, these organs become heavier than anterior to respiration. As the weight of the body of the child cannot undergo any change, he suggested accordingly, that a comparison of the weight of the body of the child with the weight of its lungs, would furnish a test by which to determine whether it had respired or not. From the few observations which he made, he came to the conclusion that where respiration had not taken place, the proportion between the weight of the lungs and that

of the body, was as 1 to 70; while on the other hand, where respiration had taken place, it was as 1 to 35; or in other words, that the weight of the lungs was doubled in consequence of respiration. A test so beautiful as this, and founded apparently upon principles so truly physiological, it was hoped, would aid, very materially, to solve this important question. Numerous experiments and observations were accordingly made to test its accuracy in actual practice; and the result has been, that while some appreciate it very highly, by others it is viewed as altogether uncertain. In the ten cases which I have examined, the proportions are the following:

| | 'Children that had respired. | | | | | | | | | Children that had not respired. | | | | | | | | d. | | | | |
|---|------------------------------|---|-----|-----|----|---|---|---|----|---------------------------------|--|--|---|---|---|----|-----|----|---|---|---|----|
| 1 | • | • | • | • | • | • | | | 43 | | | | 1 | • | • | | • | | | | | 58 |
| 2 | • | ٠ | • | • | • | | 1 | : | 35 | | | | 2 | | • | | | | • | 1 | : | 36 |
| 3 | • | • | • | • | • | • | 1 | : | 44 | | | | 3 | ٠ | | | | • | | 1 | : | 49 |
| | | | | | | | - | _ | | • | | | 4 | • | | | | | | 1 | : | 32 |
| | | A | vei | rag | e, | • | 1 | : | 40 | | | | 5 | | • | | | • | | 1 | : | 50 |
| | | | | | | | | | | | | | 6 | • | | • | | • | | 1 | : | 52 |
| | | | | | | | | | | | | | 7 | • | • | • | • | • | • | 1 | : | 54 |
| | | | | | | | | | | | | | | | | | | | | | | - |
| | | | | | | | | | | | | | | | A | ve | rag | e, | • | 1 | : | 47 |

Now the conclusions to be drawn from these observations, are manifestly adverse to the accuracy of this test. Taking the individual cases, there is not a single one of those which had not respired, which reach the proportions laid down by Ploucquet, while in the same list, cases 2 and 4 are very nearly the proportions laid down for children that have respired. If we take the general averages, too, of the cases, we find that they do not correspond with the proportions suggested by Ploucquet.

Since the time of Ploucquet, a great number of observations have been made by other persons, and as the result, they have all fixed upon different proportions. The following are some of them:

| Before re | espir | atio | n. | After respiration | | | | |
|-----------|-------|------|----|-------------------|----|------|--|--|
| Schmitt . | | | 1 | : | 52 | 1:35 | | |
| Chaussier | | | 1 | : | 49 | 1:39 | | |
| Devergie | | | 1 | : | 60 | 1:45 | | |

These, as being deduced from a large number of cases, come nearer the true proportions than those of Ploucquet, and correspond more nearly with my own observations. Still, however, it is to be recollected that they are mere average numbers, and therefore do not meet the circumstances of individual cases, which of course they ought to do, for the purpose of rendering them practically available. It may be asked, then, is this test to be rejected altogether? As an infallible one, it certainly should be. Notwithstanding this, it is still, I think, valuable as furnishing corroborative proof, and should, therefore, never be neglected. It should always be taken in connection with the other signs; and when this is done, it may aid very materially in com-

ing to a correct conclusion.

b. Absolute weight of the lungs. By some it has been supposed, that the actual weight of the lungs would furnish another criterion of the fact of respiration having taken place or not. Accordingly, an average weight of 1000 grains has been proposed for the lungs of a child which has respired, and 600 grains for those of a child which has not respired. A moment's reflection, however, must convince us that this is still more uncertain than the test of Ploucquet. Children born at the full time, we know, differ greatly in their weight, and of course there must be a corresponding difference in the weight of the lungs. I have known a child born at the full time, healthy and perfect in every respect, and yet weigh only four pounds; while children weighing eight, nine and ten pounds are by no means un-The lungs, therefore, of a child which had not respired, of nine pounds, would probably weigh more than those of a child of four pounds, which had respired; and such has been found to be the case by actual

observation. In the cases which I have examined, the following were the weights:

| | Befo | re i | resp | irat | ion. | After respiration. |
|---|------|------|------|------|-------------|--------------------|
| 1 | | | | | 540 grains. | 1 396 grains. |
| 2 | | | | | 720 | 2 800 |
| 3 | | | | | 900 | 3 814 |
| 4 | | | | | 890 | |
| 5 | | | | | 900 | Average, . 670 |
| 6 | | | | | 690 | - · |
| 7 | | | | | 689 | |
| | | | | | | |

Average, . 761

An analysis of these weights will show at once how fallacious this test must be. We have here, in three cases, before respiration took place, the lungs weighing more than in those which had respired; while the general average weight is greater in those which had not respired—just the reverse

of what it ought to be according to this test.

2. The Hydrostatic test. This test is founded upon the difference in the specific gravity of the lungs before and after respiration. In other words, lungs which have not respired will float in water, while those which have not respired will sink. Every observation which I have been enabled to make, has confirmed me in the general accuracy of this test. It is liable, however, to certain fallacies or objections which require to be understood, to enable us to make a correct practical application of the test. On the one hand, lungs which have not respired may float from putrefaction—from artificial inflation—from emphysema; while, on the other hand, lungs which have respired may sink from disease, or from the respiration being feeble or imperfect. Of these, I shall only notice two, as they are the only ones, of which illustrations have occurred in the cases which I have examined. They are, however, the most important of all the objections.

a. Putrefaction. That the lungs of a child which has not respired may float in consequence of putrefaction, although at one time questioned, is beyond doubt. The case which I shall presently relate, independent of numerous others, establishes this fact. The modes of distinguishing it from the floating of respiration are simple and obvious. a. By the air bubbles being visible under the external covering of the lungs. In vital respiration this is not the case. b. By the ease with which the air can be pressed out of the lungs. By simply squeezing them in the hand, they can readily be made to sink in the water. In vital respiration this cannot be done. c. By the sinking of the internal portion of the lungs. The air, in putrefaction, forms on the surface of the lungs; and hence the internal part, if cut out and put into water, will not float. In vital respiration, the internal part will

float more readily than the external part of the lungs.

Case. Aug. 25, 1838. A still-born child was presented for examination by Dr. Wilson of Bellevue Hospital. The child had been born two days before. The weather being intensely hot, decomposition had commenced. The body was of a greenish colour; the abdomen greatly distended; the skin peeling off in several parts of the body. The cord about two inches long, smooth, soft, moist and flexible; weight, 31680 grains; length, 22 inches; the umbilicus twelve inches from the top of the head—the centre of the body, accordingly, a little above the umbilicus. On opening the chest, the surface of the lungs was found covered with air bubbles, varying from the size of a large pea to a pin's head. On the posterior part of these organs there were no air bubbles. The colour of the lungs was dark red, with here and there spots of a lighter hue. The lungs taken out of the chest, with the heart and thymus gland attached, floated in the water; separated from the heart and thymus gland, they also floated, as did also the latter organs. The weight of the lungs was 540 grains; making the relative weight to that

of the body as 1:58. A portion of the internal part of the right lung being cut out, sank in water. Both lungs were now subjected to moderate pressure, and after this they sank in water. Each lung was now cut into ten pieces, and on being put into water, some sank, while others floated. being moderately compressed between the fingers, each separate section sank rapidly to the bottom of the vessel. The ductus arteriosus was cylindrical in shape, and about the size of the pulmonary artery; the foramen ovale open; the umbilical vessels and ductus venosus pervious; and meconium in the large intestines.

This case illustrates, very strikingly, the fact that the lungs of a still-born child may float from putrefaction, and at the same time confirms the accuracy of the tests, by which it may be distinguished from the floating which

is the result of vital respiration.

b. Artificial inflation. That the lungs of a child which has not respired may be artificially inflated, so as to cause them to float, though doubted by some, is well established; and when this is the case, it presents one of the most puzzling problems-to distinguish it from vital respiration. The only test upon which any reliance can be placed, is the application of suitable pressure to the lungs. If the floating be the result of vital respiration, no degree of pressure can expel the air from the lungs sufficiently to cause them to sink; while, on the other hand, in cases of artificial inflation, this can be done.

Case. Dec. 6, 1839. Examined a child which had been still-born, but which the accoucheur had attempted to resuscitate by blowing into its mouth, but without success. Length, twenty inches; the centre of the body at the umbilicus; head full of hair; nails full grown, and the body perfectly sound. Weight 47040 grains. No inflammatory circle around the navel; thorax flat. On opening the chest, the lungs were found in the upper and lateral portions of the chest, leaving the pericardium and diaphragm uncovered. On taking out the lungs, the right lung was of a dark red colour, with the exception of the lower part of the upper lobe, and the upper part of the lower lobe, which were of a bright red. The middle lobe had alternate patches of bright red and dark red. The left lung was dark red, with the exception of the extremity of the lower lobe and the posterior part of the upper lobe, which were bright red. Distinct crepitus in both lungs in the parts corresponding to the bright patches. The weight of the lungs was 900 grains, making the relative weight to that of the body as 1:52. Both lungs floated in water. The separate lobes of each lung also floated. The right lung was then cut into twelve pieces, all of which floated: but all the pieces sank after being subjected to pressure. The left lung was cut into ten pieces, and all but one floated. On pressure being made, they all sank. The pressure was made by placing them in a piece of strong linen, and then twisting and wringing them; after this they were placed under a large flat stone.

The ductus arteriosus was as large as the trunk of the pulmonary artery; cylindrical in shape, and much larger than the branches of the pulmonary The foramen ovale, ductus venosus, umbilical arteries and veins all artery.

open.

This case is exceedingly interesting, as illustrating the effects of artificial inflation, and as showing how nearly they resemble those of vital respira-The floating of the lungs was almost perfect, and the weight of the lungs (900 grains) was nearly that of the usual average standard of children that have respired. On the other hand, the sinking of the lungs, after due pressure, the relative weight of the lungs and the body, 1:52, and the state of the ductus arteriosus, were in favour of artificial inflation.

3. State of the ductus arteriosus. This is also called the Vienna test, from its being originally suggested by Prof. Bernt, of Vienna. It is founded on certain changes, which take place in the ductus arteriosus, immediately after respiration. In the mature fœtus before respiration, this duct is about half an inch long, cylindrical in shape, with a diameter about equal to that of the pulmonary artery, and more than double the size of the branches of that artery, each of which is equal to that of a crow quill. If the child have respired a few moments, the duct becomes conical in shape, with its contracted part towards the aorta. If the child have respired for some hours or a day, it becomes cylindrical again in shape, but lessened in length and diameter. It is much less now than the pulmonary artery, and not larger than the branches of that artery. If the child have respired for several days or a week, the duct will be found still more contracted; its diameter will be not larger than a crow quill, while the branches of the pulmonary artery are

much enlarged to the size of a goose quill.

The result of my observations goes strongly to support the accuracy of these observations. In six still-born children, I found the ductus arteriosus cylindrical in shape, and about the size of the main trunk of the pulmonary artery, and considerably larger than the branches of the pulmonary artery—in some cases double the size. In a seventh still-born child, I found it nearly the size of the pulmonary artery, but not much larger than its branches. In a child which had lived four days, the ductus arteriosus was cylindrical, three lines in length, and about the size of a crow quill, and not more than half the size of the pulmonary artery. In a child which had lived three days, the ductus arteriosus was two and a half lines long and cylindrical; about one-third the size of the pulmonary artery, and somewhat smaller than the branches of that artery. In a child which lived forty-six hours, the ductus arteriosus was one-fourth of an inch long, cylindrical in shape, less than half the size of the pulmonary artery and about equal to the branches of that artery.

Although the foregoing observations, generally speaking, confirm the accuracy of this test, it is to be recollected that it is not to be relied upon in all

cases. This has been shown particularly by Orfila.

I have thus, as briefly as possible, recorded the results of the foregoing observations, without indulging in the many comments which naturally suggest themselves. I have, however, in another place,' so fully discussed all the points connected with this subject as to render them at present unnecessary.

ART. III.—ANALYTICAL ACCOUNT OF THE RESEARCHES AND RECTIFICATIONS IN THE PRACTICE OF AUSCULTATION AND PERCUSSION, made by Dr. Joseph Skoda, Teacher of Clinical Medicine in the Hospital of Vienna. By John Drysdale, M.D., and John R. Russell, M.D.²

[In a former number of the *Intelligencer* (p. 27) we published the views of Dr. Skoda on Auscultation and Percussion. The following article is a continuation of the former, and contains Dr. Skoda's views on the Auscultation of the Heart.—Ed.]

On the Sounds of the Heart.—Dr. Skoda first considers in detail the various theories which have been proposed to explain the production of the sounds of the heart, and the experiments on which some of these have been founded, and while he entirely dissents from the explanation of Hope, Burdach, and others, he partially agrees with those given by Magendie, Williams, the Dublin Committee of the British Association, &c.; and then proceeds to develope his own views, which, it will be seen, are fundamentally the same as those of Rouanet and Bouillaud, although differing in some important particulars.

To obtain a solution of the question as to the origin of the sounds heard

¹ Elements of Medical Jurisprudence, by T. Romeyn Beck, MD., and John B. Beck, M.D.

² Edinb. Med. and Surg. Journ., Jan. 1842., p. 95.

in the region of the heart, mere vivisection will not alone, he thinks, suffice; but observations on healthy and diseased individuals, and a careful comparison of the phenomena observed during life, with the results of examination after death, are requisite. The sounds arising from the motions of the heart have not the same degree of distinctness and clearness in different individuals, although quite healthy; in one, they are not sharply marked, and scarcely to be heard, while in another, they are very clear; in one, they can scarcely be perceived in the region of the heart, in another, they may be distinctly heard almost over the whole anterior surface of the chest. In many individuals these sounds are heard most distinctly at the point where the heart beats, while in others they are only feebly heard at this spot, and more distinctly over the aorta and pulmonary artery. If the sounds heard at the point where the heart beats be compared with those heard above the base of the heart, at the part under which the aorta and pulmonary artery lie, it will often be remarked that towards the apex of the heart the first sound (i. e. that synchronous with the beat of the heart) is longer than the second, while, above the base of the heart, this relation is reversed. On comparing the sound heard at the spot where the apex of the heart strikes the chest, that is, over the left ventricle, with those heard under the sternum, in a line with that spot, i. e. over the right ventricle, it will sometimes be observed that the sounds differ in strength and clearness at these two points. Finally, in auscultating above the base of the heart, on the right side of the sternum, somewhat above its middle, i. e. the spot under which the aorta runs, the sounds will be sometimes heard different in strength and clearness from those heard in a line with this point about an inch on the left side of the sternum, i. e. over the pulmonary artery. These differences in the sounds, which are not unfrequently quite perceptible in healthy individuals, become much more distinct in the various morbid conditions to which the heart is liable. Those who have frequent opportunities of examining cases of diseases of the heart, will meet with instances in which both the normal sounds are entirely wanting in the part of the chest corresponding to the left ventricle, and their place supplied by a single or double abnormal sound resembling blowing, sawing, rasping, &c.; while to the right of this, over the right ventricle, and above the base of the heart, over the aorta and pulmonary artery, both the normal sounds are heard quite distinctly. In other cases, the sounds may be normal in the left ventricle, in the aorta and pulmonary artery, while they are replaced by a bellows-sound in the right ventricle. Still more frequently are cases met with in which a single or double bellows-sound is heard in the part corresponding to the course of the aorta, while both the normal sounds are heard distinctly over the right and left ventricles, and over the pulmonary artery. It also happens that a single or double abnormal sound may be heard over the aorta and left ventricle, while the normal sounds are heard over the right ventricle and pulmonary artery; or there is heard an abnormal sound over both ventricles, or over the right ventricle and the aorta, or over both ventricles and the aorta, while in the spots where no abnormal sound is heard the normal sounds may be distinctly perceived.

If these observations are correct, then it follows that the right and left ventricles, the aorta and pulmonary artery are each, independently, capable of

producing both the sounds heard in the region of the heart.

On comparing the observations during life with the results of dissections, it is almost always observed that abnormal conditions of the valves,—such as, excrescences, thickening, narrowing of the orifices, are formed in cases which have presented, during life, the alterations of the normal sounds described above. Yet it cannot be denied, that occasionally the valves are found not quite normal after death, in cases which presented no alteration of the sounds during life. This shows that it is not every change in the valves that is capable of producing a sufficiently perceptible alteration in the sounds; or that other circumstances must co-operate with the affection of

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the valves in producing alteration of the sounds. These facts render necessary a more detailed examination of the structure and function of the valves

in the healthy as well as in the morbid state.

Action of the tricuspid and mitral valves during the motions of the Heart.—Dr. Skoda here directs attention to the mode of distribution of the cordæ tendineæ on the tricuspid and mitral valves, which, though previously overlooked, is of so much importance, that, without taking it into account, we cannot form an accurate idea of the precise mode in which these valves prevent the reflux of the blood into the auricles. We may, therefore, enter somewhat more fully into his description of the anatomy and function of

these parts.

From each columna carnea run several stronger fibres (cordæ tendineæ) to the middle of the ventricular surface of the valve, and are inserted there, or some of them go to the base of the valve, and are inserted at the point of junction of the valve with the wall of the ventricle. From these stronger fibres, about their middle, and partly also from the columna carnea arise finer fibres, which are inserted nearer the free edge of the valve. finer fibres serve as points of attachment to still more delicate ones, which are inserted nearer and into the free margin of the valve. By pulling the columnæ carneæ in the direction which they have in the heart, it will be seen that only the stronger fibres, which spring from the columnæ carneæ are stretched; both the other kinds remaining relaxed, even with the utmost force we can exert. By thus pulling we never can stretch the free edge of the valve, but only the part of it between its attachment and the point of insertion of the tendinous fibres, which arise in the columnæ carneæ; the whole of the rest of the valve, i. e. from the middle to the edge, remains relaxed. If we press back, in the direction of the auricle, any point of this loose part of the valve, so as to stretch the fibres that are inserted into it, a number of pouches are disclosed to view, and on further examination the whole ventricular surface of the valve, from the free edge to the middle, is found to present similar pouches, which are obviously formed by the peculiar mode in which the tendinous fibres are inserted. These pouches represent, as it were, small semilunar valves, and the tri and bicuspid valves present the appearance of a combination of a vast number of small semilunar valves, which are kept in their proper position by the tendinous fibres. By blowing or pouring water on the valve, this loose part is blown up like a sail, and the whole of the pouches are seen at once. During the contraction of the ventricle, when the blood tends to flow back into the auricle, it necessarily catches in these pouches, and thus spreads out the loose part of the valves as far as the tendinous fibres permit. By means of this expansion of the valve, the blood prevents its own reflux into the auricle, provided that the valve is held in such a position by the fibres that no opening remains upon its expansion. And to secure this, as is well known, the cordæ tendineæ take their origin from the columnæ carneæ, in order that they may present the same relative length during the contraction of the ventricle.

In order that the tricuspid and mitral valves may perform their function properly, they must display the above described pouches at the free edges, and the cordæ tendineæ and columnæ carneæ must have a length corresponding to the size of the ventricle. If the valve deviate from the normal conformation, then it is either unable to prevent the reflux of the blood into the auricle, or it offers resistance to the flow of the blood from the auricle into the ventricle during the diastole of the latter. The first of these is produced by thickening and shortening of the free edge of the valve; or by its adhesion to the finer tendinous fibres, thus producing obliteration of the pouches: or by shortening, lengthening, or laceration of the cordæ tendineæ or by deposition of excrescences, &c. on the edge of the valve; the second, by considerable excrescences, blood coagula, calcareous concretions, &c. on the auricular surface of the valve; or by adhesions of the cordæ tendineæ to

one another, or to the free edge of the valve which prevent it from being

freely opened.

Explanation of the Normal Sounds in the Ventricles.—The comparison of the observations made on patients with the results of dissection, have shown that a distinct first normal sound is almost never heard in the left ventricle, when the mitral valve is incapable of hindering the reflux of the blood into the auricle during the contraction of the ventricle, i. e. when it is imperfect. In such a case, there is heard an abnornal sound simultaneous with the systole of the ventricle; while at the same time a distinct normal sound can be heard in all the other parts of the region of the heart. same may be observed of the right ventricle. The first sound which is heard during the systole of the ventricle, arises from the interruption of the stream of blood, from the shutting of the mitral and tricuspid valves, and depends upon the columnæ carneæ and cordæ tendineæ being thrown into vibration by the sudden closure—by the blood in the ventricle—of the mitral and tricuspid valves, and the reason that the sound is prolonged is, that the vibration continues as long as this state of tension is maintained. This exvibration continues as long as this state of tension is maintained. planation fully accounts for the prolonged character of the sound, for cords when suddenly stretched will vibrate for a considerable time, if the tension be continued, and may emit a clear or even ringing tone resembling the one which characterizes the first sound of the ventricles, and wholly unlike that produced by the contraction of muscles, which is always dull and indistinct.1

The explanation of the second sound in the ventricles is a point of much greater difficulty. It cannot be said that, in the normal state of the heart, a second sound always originates in the ventricles, since it is certain that the second sound heard in the ventricles is generally that transmitted from the semilunar valves. But there certainly are cases in which we are obliged to admit the origin of the second sound in the region of the ventricles themselves, viz. when the second sound is scarcely heard at all, or very weak, over the base of the heart, while it is heard clear and loud at the apex. Dr. Skoda thinks that none of the theories of the sounds of the heart afford a satisfactory explanation of this, and therefore leaves it quite doubtful; although he thinks it probable that it may originate in the sudden detachment, during the diastole of the ventricle, of the apex of the heart from the parietes

of the chest, when it is covered with somewhat viscid effusion.

Explanation of the Sounds in the Arteries.—In the pulmonary artery, aorta, carotid, and subclavian arteries, sounds are usually heard exactly similar to the normal sounds of the heart. These have been usually ascribed to the propagation of the sounds of the heart along the arteries; but Dr. Skoda believes, for these reasons, that they have their origin in the arteries themselves. 1st, In certain rare cases a sound can be heard in all the larger arteries precisely similar to one of the normal sounds of the heart; and no one has thought of ascribing such sounds heard in the brachial or crural arteries to propagation of sound from the heart. 2d, Sounds are frequently heard in the carotid and subclavian, while the normal sounds are either not heard at all in the heart, or very much weaker than in the neck. It has been attempted to explain this by referring it to a peculiar mode of conduction of the sounds on account of some abnormity in the organs of the chest; but cases of this kind are common enough, where the lungs have been found quite healthy. Bouillaud also believes that the arteries may produce a sound, although not like the proper tic-tac of the heart, but one of an indistinct character. Skoda admits that, in the arteries more distant from the heart, such is frequently the character of sound heard; but the nearer ones, viz. the carotid, subclavian, aorta, and pulmonary artery, give in general a tic-tac, just as loud as is heard in the region of the heart, while, on the other

Dr. Skoda here notices, that a sound quite similar to that over the left ventricle may sometimes be produced, by the stroke of the apex of the heart against the walls of the chest, but does not lay any practical weight on it.

hand, the sounds in the region of the heart are sometimes also dull and indistinct.

The cause of the sound heard in the arteries synchronous with the pulsation, *i. e.* the first sound, is, according to Skoda, the sudden tension of the coats of the vessel.

The second normal sound is heard in the aorta and pulmonary artery, and usually also in the carotid and subclavian. It is obviously produced by the shock of the column of blood against the semilunar valves, which is communicated to the coats, not only of the aorta and pulmonary artery, but also,

not unfrequently, to the carotid and subclavian.

On the varieties in the Normal Sounds.—These sounds may, even in the healthy subject, present a great variety of modifications, which it is unnecessary to enter into here, except to make the practical observation, that the more the sounds have the clapping sharp sound, the greater is the certainty that they are produced by the proper action of the valves. And if the sound heard over the ventricles is of an undefined, murmuring character, it is proper to denominate it an indeterminate sound, (as has been already done with respect to respiration,) and draw no conclusion at all from it.

On the Abnormal Sounds.—These have their origin within the cavities of

the heart, within the arteries or in their coats, or in the pericardium.

On the Abnormal Sounds which arise within the cavities of the Heart.— These have been variously denominated, according as they have been compared at different times by different observers, to the noise of a pair of bellows, a file, a saw, a rasp, &c., or they have been termed whistling or groaning, &c. The physical conditions necessary to the production of these abnormal sounds, are now generally admitted to be the friction of the blood against the walls of the heart and valves, caused by certain organic changes within the heart, viz:—

1st. Imperfection of the tricuspid and mitral valves, or of the aortic valves. 2d. Contraction of the left auriculo-ventricular orifice, or of the aortic

orifice.

3d. Roughness, as from excrescences, cartilaginous or calcareous concretions, or blood coagula, on the endocardium towards the orifice of the aorta, on the lower surface of the semilunar valves of the aorta or pulmonary ar-

tery, or on the ventricular surface of the tricuspid and mitral valves.

Many have believed that these abnormal sounds may be produced without organic change in the heart, e. g. by mere spasm, as conceived by Laennec. This is denied by Skoda. Andral maintains that abnormal sounds may be generated in the heart, as the simple effect of general plethora. Skoda denies that this can take place unless there previously existed some organic change which was too slight to give rise to abnormal sounds during the ordinary action of the heart, but which produced one whenever the action became increased in consequence of the plethora. It has likewise been asserted that abnormal sounds arise after great losses of blood, and in anæmia in general, when the action of the heart is lively. Skoda has repeatedly examined patients in whom a deficiency of blood, either from bleeding or from disease, was well marked, when the action of the heart was lively, and he thinks he has even examined patients who have died of want of blood; but he has never met with a case where abnormal sounds were dependent solely upon that cause. Likewise, the abnormal sound heard in chlorotic patients is not found in the heart, but usually only in the arteries of the neck. In the aorta it is seldom loud, and in these cases it can at times be heard over the heart, although only as a dull sound.

It has been observed, that in the same case of heart disease, the character of the sound frequently varies, and at one time a bellows, and at another a saw sound, &c. is heard, according as the action of the heart is more or less energetic; and often it is quite arbitrary how the sound is denominated, for, if several observers auscultate the same case, one will compare the sound to a file, another to bellows, &c. Dr. Skoda therefore considers any subdivi-

sion of the abnormal sounds quite superfluous and of no diagnostic value, and comprehends them all under the general term "Geräusch," which has been here rendered "abnormal sound," and sometimes "bellows-sound," which, as most common, we employ as representing any abnormal sound, unless otherwise specified. The points of importance to know are where they arise, and whether they are synchronous densations and in relationship to the points of the points of the points of diagnostic value, for any theory are synchronous densations and the points of the points

for upon these circumstances depend their value as diagnostic signs.

On the Abnormal Sounds in the Arteries.—All the different kinds of abnormal sounds which occur in the ventricles may be generated in the aorta. They are produced by excrescences, cartilaginous or calcareous concretions, &c. on the lining membrane of the vessel, attended with contraction, or dilatation, or normal size of its calibre. The state of the valves may likewise give rise to abnormal sounds, as when their lower surface is rough, when there are excrescences on the free edge, when they are rigid or adhering to each other, so that the stream of blood cannot press them quite back to the sides of the vessel; and when they are imperfect. Abnormal sounds in the pulmonary artery are of extremely rare occurrence.

Any notice of the various sounds in the other arteries in chlorosis, &c. would lead us into details inconsistent with the object of the present notice.

On the Pericardial Sounds.—When, from any cause, such as exudation of lymph, calcareous and other concretions, &c. the surface of the pericardium becomes rough, certain sounds are found to accompany the motions of the heart, either in the systole and diastole of the ventricles, or during the latter alone. It has been attempted by describing the different varieties of these sounds to obtain certain means of distinguishing affections of the pericardium from those of the heart. Bouillaud, in particular, has described three species, which he conceives to be peculiar to the pericardium, and capable of being distinguished from those which arise in the heart. Skoda has, however, found that these varieties of the rubbing sound certainly do occur in the pericardium, but also several more; and his experience has led him to the conclusion, that the rubbing sound in the pericardium may imitate every sound produced within the heart, with the exception of the whistling sound; and, on the other hand, every variety of the rubbing sound of the pericardium may occur within the heart. Likewise, the circumstance that a sound appears superficial or remote, is no ground of distinction; for a sound propagated through solid bodies appears quite superficial when it is loud, and vice versa; and though a very loud bellows sound in the heart may often appear quite superficial, while a pericardial sound is often weak and dull, and therefore appears to come from a distance. There is nothing, therefore, in the character of the sounds themselves, or in the apparent distance, that enables us to determine whether they are produced in the pericardium or within the heart. The only direction that Dr. Skoda can give for distinguishing them, is, that the abnormal sounds within the heart follow exactly the rhythm of its beat, and correspond to the normal sounds, while those in the pericardium appear to be somewhat postponed. But this test cannot be applied when the beat is very short. We must then rest the diagnosis on the other circumstances of the case, such as the indications afforded by percussion, the consecutive changes attending valvular disease, &c. Dr. Skoda is further of opinion, that no sound can occur in the pericardium, until there is an exudation of plastic lymph, until, indeed, rough spots are formed on its surface—and that the motions must possess a certain degree of strength, for when they are too weak, the surface of the pericardium may be covered with a thick and rough false membrane, and yet no rubbing sound be produced.

Indications afforded by the Normal and Abnormal Sounds in the Ventricles, Aorta, and Pulmonary Artery.—Before entering on this it may be noticed, that the left ventricle is to be auscultated at the spot where the beat of the heart is felt; the right generally at the inferior part of the sternum; the aorta a little to the right and above the middle of the sternum;

and the pulmonary artery a little to the left of the middle of the sternum. The position of the right ventricle and pulmonary artery is variable, and can only be determined by that of the ventricles and aorta.

I. a. In the left ventricle during the systole.—a. The (first) normal sound without bellows-sound, indicates that the mitral valve closes, and thus pre-

vents the reflux of the blood into the auricle.

Bellows-sound in the place of the (first) normal sound, arises from the imperfect closure of the mitral valve, and in this case it is caused either by the friction of the regurgitating blood on the rough spot of the margin of the valve, or by a stream of blood driven from the ventricle meeting one flowing in the opposite direction in the auricle; or from friction of the blood on rough spots in the neighbourhood of the aortic orifice, while, at the same time, the mitral valve may shut perfectly, or from a combination of both these conditions. In imperfection of the mitral valve, the pulmonary circulation is always overloaded, and obstruction afforded to the passage of the blood through the lungs, and hence follow increased action of the right heart, greater tension of the pulmonary artery, and consequently, preternatural loudness of the sound of the valves, i. e. the second normal sound heard over the pulmonary artery. Hence a bellows-sound in the left ventricle during the systole does not indicate imperfect closure of the mitral valve, unless the second sound in the pulmonary artery be at the same time louder than natural, If the second sound of the pulmonary artery be not strengthened, the bellows-sound heard during the dystole in the left ventricle indicates roughness either of the surface of the valve, or of the lining membrane of the ventricle in the neighbourhood of the aortic orifice; for it is only here that the current of blood has a sufficient velocity to cause a sound.

y. A bellows-sound accompanying the normal sound, affords the same indication as a bellows-sound without the normal sound.—For the normal sound may be produced by the perfect closure of the mitral valve, while a bellows-sound is at the same time produced by rough spots near the orifice of the aorta; or the normal sound may arise from the expansion of some of the pouches of the mitral valve which remain normal, while the imperfec-

tion of the rest gives rise to a bellows-sound.

s. Absence both of normal and abnormal sounds is a phenomenon which gives no information as to the state of the mitral valve.—For the valve may shut perfectly, and yet the presence of circumstances which deaden the sound may render it inaudible. But there may also exist imperfection of the mitral valve, and yet no bellows-sound be present, if the current of blood do not meet with any rough spots, or is not sufficiently rapid. This happens, however, very rarely. In such a case the diagnosis must be rested on collateral circumstances, such as the state of the valves of the pulmonary artery, &c.

b. Sounds heard in the left ventricle during the diastole.

a. The normal (second) sound, without bellows-sound, indicates that the left auriculo-ventricular orifice is not contracted, and that the blood does not encounter any rough spots in its passage from the auricle to the ventricle.

β. Bellows-sound, either accompanying the normal sound or alone, indicates contraction and roughness of the auriculo-ventricular orifice, or rough and projecting spots on the auricular surface of the valve without narrowing of the orifice. In contraction of the auriculo-ventricular orifice, the obstruction of the lesser circulation causes even more rapidly than imperfection of the mitral valve, hypertrophy with dilatation of the right ventricle, and increased loudness of the second sound in the pulmonary artery. If there be merely roughness of the auricular surface of the valve without contraction of the surface, there is no increase of the loudness of the second sound in the pulmonary artery, unless it happens to be there already from other causes. The greater the contraction of the orifice, the longer and more sonorous is the sound heard; and when considerable, it may give rise to that thrilling sensation felt with the hand over the region of the heart, called by Laennec fremissement cataire.

- y. Absence both of normal and abnormal sounds affords no definite indi-
 - II. a. In the right ventricle during the systole.
- a. The normal (first) sound without bellows-sound, indicates that the tricuspid valve closes perfectly, and prevents the reflux of the blood into the
- B. Bellows-sound, alone or accompanying the normal sound, indicates either imperfection of the tricuspid valve with rough spots on its free edge, or excrescences in the neighbourhood of the arterial orifice, while the valve closes perfectly: the latter, however, occurs very rarely. Imperfection of the tricuspid valve causes an accumulation of blood in the auricle, vena cava, and jugular veins, increased at each systole of the ventricle, and thus is produced the pulsation of the jugular veins. Imperfection of the tricuspid valve is thus indicated by a bellows-sound in the right ventricle during the systole, with simultaneous pulsation of the jugular veins.

b. Hitherto Dr. Skoda has never met with an abnormal sound during the diastole of the right ventricle; and the narrowing of the right auriculo-ventricular orifice, if it ever takes place, must be an extremely rare occurrence.

III. a. In the aorta during the systole of the heart.

a. The normal (first) sound without bellows-sound, does not necessarily indicate a perfectly normal condition of the aorta, for it may be present in various abnormal states of that vessel, such as alterations in its capacity or thickening of its coats, which may influence the intensity of its sounds without affecting their character.

B. Bellows-sound, with or without the normal sound, indicates rough spots on the inner surface of the aorta, or on the under surface of the semilunar valves. But in chlorotic persons, the vibrations of the carotid or subclavian are sometimes propagated down to the aorta, and thus are abnormal sounds—usually only dull—and may be heard in this vessel without there being any roughness present.

2. Absence of sound, normal or abnormal.—The same remark applies

here as when this occurs in the ventricles.

b. In the aorta during the diastole of the ventricles.

a. The normal (second) sound without bellows-sound, indicates the closure

of the aortic valves.

B. Bellows-sound, without the normal sound, if it is prolonged and heard beyond the base of the heart, indicates imperfection of the semilunar valves, with rough spots on their free edges. If the bellows-sound is only of short duration, or heard only high up in the aorta, it may arise merely from rough places on the inner surface of the aorta, without imperfection of the semilunar valves.

y. Bellows-sound, ending in a normal sound, arises from the presence of rough places on the inner surface of the aorta, while, at the same time, the

semilunar valves close perfectly.

8. Bellows-sound and normal sound heard together, but so, that the bellows-sound is prolonged beyond the normal sound.—This indicates that the aortic valves are expanded by the column of blood, but they are not quite perfect, and the regurgitating blood produces a prolonged bellows-sound.

IV. a. Hitherto Dr. Skoda has met with only three cases where a sound so prolonged as to be considered abnormal was heard in the pulmonary artery during the systole of the ventricles. But he had not the opportunity of as-

certaining by dissection the cause of this.

b. During the diastole he has, as yet, never heard an abnormal sound in the pulmonary artery. The normal sound is strong in imperfection of the mitral valve, contraction of the auriculo-ventricular orifice as already mentioned; but it may also be strong without any such disease of the mitral valve, if there be hypertrophy and dilatation of the right ventricle, and lively action of the heart.

BIBLIOGRAPHICAL NOTICES.

Warrington's Obstetric Catechism.1

The author of this Catechism is a zealous prosecutor of Obstetrics, and we have often had occasion to refer to him in the pages of this Journal. He is engaged, too, actively in teaching practical obstetrics, and has gained the esteem of many pupils now spread abroad in various parts of the Union.

In preparing the book before us, Dr. Warrington states, that he has not followed the systematic arrangement adopted by any obstetric writer. "If," says he, "I have been biassed by any extrinsic influence, it has been by that of the courses of obstetric instruction given in the University of Pennsylvania, my Alma Mater. I have not, however, calculated it for the meridian of that school only."

It was not necessary, that the author should have pointed out this bias, inasmuch as it is evidenced in numerous parts of the volume, in which he brings prominently forward the opinions of the able Professor of Obstetrics in the University of Pennsylvania:—

Thus, "What diameter is the larger in the recent pelvis—the oblique or transverse? Ramsbotham says, the oblique—Hodge the transverse diameter, &c."

"What has been observed by Professor Hodge, of the direction in which the fibres contract during the effort to expel the placenta?

"How does Dr. Hodge trace up the chain of morbid nervous actions or sympathies in these cases." [spinal irritation.]

"Does the chorion form the basis of the placenta? This point is not well settled, though in the opinion of Hodge, Dewees, and some others, it does."

"What is Professor Hodge's theory of the mode of formation of the placenta?" &c. &c.

This frequent reference to the views of the Professor of Obstetrics will render the volume more useful to the students of the University of Pennsylvania than to those of any other school: at the same time, it contains matter that is valuable to all. We do not, however, admire this method of quizzing or grinding, and would have preferred, that the book had taken any other shape than that of question and answer.

We may express our surprise, by the way, that nothing is said under the "signs of pregnancy," either of the blue colour of the vagina observed so frequently by Jacquemin, Kluge and others; or of the Kiesteine, regarding which we have now so much valuable information. Certainly, no obstetric course or book can be complete without a reference to the latter, the evidence in favour of which is perhaps stronger than that of any sign in the earlier months.

In respect, too, to the placental souffle—as it has been termed—Dr. Warrington might have alluded to the fact, that a similar sound has been heard, where there was no pregnancy. Of this the author has satisfied himself; and further evidence thereof is contained in the work of Hope, now in course of publication in the *Library*, and in the valuable additions made to it by Dr. Pennock.

We cannot but regret, that the estimable author should have allowed so many verbal inaccuracies to exist, especially as the work is intended for

¹ The Obstetric Catechism. By Joseph Warrington, M.D. 12mo. pp. 350. Philadelphia, 1842.

students. Thus, we observe—Lamboid Suture, Saggital Suture, Symphysis pubes, Hyosciamus, Tympanitis Uteri, germniparous, epigenisis, &c.

Circular Letter to the Physicians of Kentucky.1

The object of this letter is laudable. It is to exhibit the advantages which would accrue to the medical profession in Kentucky and to the public in general, by the establishment of a board of examining physicians, who shall meet annually for the purpose of conferring diplomas on all candidates who may be found worthy upon a rigorous examination. The committee appointed to prepare the circular were Drs. Linton, of Springfield, Duke, of Maysville, Burnet, of Trigg, and Bennet, of Kenton.

Transactions of the Medical Society of New York.²

This second part contains, 1. The annual address by Dr. John B. Beck, M. D., President; being a sketch of American Medicine before the Revolution, already noticed. 2. A brief review of Dr. Marshall Hall's views on an excito-motory system of nerves, by N. J. Davis, M. D. 3. Observations on some of the signs of live and still-birth-reprinted in the present number of the 'Intelligencer;' and, 4. The Appendix, containing an abstract of the Proceedings of the Medical Society of the State of New York, at its annual session, in February, 1842.

Pharmacopæia of the United States.3

In the present number of the 'Intelligencer' we cannot do more than announce the appearance of this official volume—which has for the last two years occupied so much of our attention, and that of our valued colleagues, Professors Wood and Bache, of the Committee of the National Convention—and recommend it to the special attention of all our readers.

Dr. J. B. Beck's Sketch of American Medicine before the Revolution.

The author of this 'Sketch' is known as one of the most able and estimable physicians of this country. As an author, he has been long before the profession, and so highly impressed were we with the value of the "New York Medical and Physical Journal," of which he was principal editor, that nearly twenty years ago he was proposed by us a Corresponding Member of the "Medical Society," the oldest and one of the most respectable institutions of the British Metropolis, of which we were, at the time, Secretary for Foreign Correspondence; or, as the Latin diplomas say-"ab epistolis ad exteros dandis."

The sketch before us appears in the "Transactions of the Medical Society of the State of New York," vol. v. part 2, and is a valuable contribution to the medical history of the country.

¹ 12mo. pp. 12, Maysville, Kentucky, 1842. ² Vol. v. part 2. ³ The Pharmacopæia of the United States of America. By authority of the National Medical Convention held at Washington, A. D. 1840. 8vo. pp. 279, Philadelphia, 1841. ⁴ An Historical Sketch of the State of American Medicine before the Revolution,

York, February 1, 1842: by John B. Beck, M. D., President of the Scate of New York, February 1, 1842: by John B. Beck, M. D., President of the Society, Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the City of New York; one of the Physicians of the New York Hospital; Corresponding Member of the Royal Academy of Medicine of Paris; Corresponding Member of the Medical Society of London, &c., 8vo. pp. 35, Albany, 1842.

Dr. Coventry's Valedictory Address. 1

There is much good sense exhibited in the advice to the graduates of Geneva College, delivered by Dr. Coventry. In the midst of the repeated applications to the legislature of his state by practitioners, who neither are, nor ought to be, considered physicians, for all the immunities and privileges that are possessed by those who are rightfully such, we are not surprised that the whole subject of quackery should suggest itself to him; and we apprehend, that the following views on the subject are the most rational. They are at least such as we have always maintained, whilst we have been compelled to admit, that the evil may only admit of diminution—not, we think, of eradication. Man is essentially a gullible animal, and if one folly passes away, another—we fear—must soon succeed.

"Some experience and much reflection on the subject has long since produced the conviction that this is an evil which can neither be combated by reason nor suppressed by legislative enactments. We would suppose that education and the diffusion of general intelligence would correct it, but past experience contradicts the supposition; our papers are filled with the names of men of education and talents attached to recommendations of nostrums, of the composition and effects of which they are perfectly ignorant. mode, and only one, remains of correcting the evil; if this fails, it is remediless. Let medical men divest the profession of all the mystery in which it has unfortunately been enveloped—too long has the physician been considered the rival of the juggler. Let them demonstrate, that like every other science, it is founded on careful observation; that, it consists of the accumulated and recorded observations of successive ages; that no man is born a physician, but to acquire this knowledge is the labour of years of unremitting toil. Teach men the functions of their own system, how admirable in design, how complicated in structure, and yet how beautifully adapted in every part to the performance of its own appropriate functions. Then ask them if they are willing to trust the correction of derangements of this beautiful machine, to persons entirely ignorant of its several parts, when a single error may cost them their lives.

"To guard against quackery and empiricism out of the profession would not be the only good accomplished by the general diffusion of this knowledge. It would qualify community to judge as to the actual and comparative merits of members of the profession. The modest and unassuming physician would be elevated to his proper station, whilst presumptuous ignorance, whether with or without a diploma, would be consigned to deserved contempt. A knowledge of their own system would enable mankind to guard against many causes of disease to which they are continually subject. To accomplish this as far as possible has ever been a favourite object with the founders of this institution. It has been urged upon her graduates to improve every opportunity of giving popular lectures on anatomy, physiology and hygiene. There are few places where an audience could not be collected to listen to a lecture on those interesting subjects, and few physicians are so fully occupied during the first years of their practice but they could find ample time for their praparation and delivery. Permit me to repeat to you, young gentlemen, the recommendation; your leisure hours could not be more profitably employed either for yourselves or the public; and we ask for our Institution no prouder distinction than that her graduates should be everywhere known as the pioneers in the great work of reform." -pp. 14, 15.

¹ Address to the Graduates of the Medical Institution of Geneva College, delivered January 25, 1842. By C. B. Coventry, M.D. Dean of the Faculty, and Professor of Obstetrics and Medical Jurisprudence. (Published by request of the Class.) 8vo. pp. 16. Utica, 1842.

MISCELLANEOUS NOTICES.

Thomsonianism in Michigan and New York.—[It is stated in recent Journals, that Thomsonians have now the benefit of law in Michigan in the collection of debts, "and to all intents and purposes are as much protected and respected as the first surgeons in America."! (Boston Med. and Surgical Journal, cited in New York Med. Gazette.) This news would not be a source of regret did the people in general possess adequate information on subjects connected with our profession. That they do not is matter of notoriety, and the pages of our own Journal, from time to time, afford ample evidence of the fact. The circumstance, indeed, that a legislature has granted such privileges and immunities to a class of uninformed individuals, merely because they support a preposterous doctrine—if doctrine it can be called—exhibits, that there is a sad lack of knowledge and discretion amongst those who ought to be the representatives of the better intelligence of the community.

In New York, the Medical Society, under a law of the State, tests by examination the qualifications of all practitioners. This, of course, does not suit the Thomsonians, who have petitioned the legislature for an exemption. The following report of the Committee on Medical Societies and Colleges on petitions "for a law to enable Thomsonian physicians to collect pay for their services" is conclusive, and we would fain hope,—against hope, however,—that the matter will be set at rest in that State, where these deluded or deluding individuals have been considerably turbulent.—Ed.]

Mr. Taylor, from the Committee on Medical Societies and Colleges, to whom was referred sundry petitions praying for a law which shall recognise the Thomsonian Medical Society of the State of New York, and enable the "Thomsonian" or "Botanic Physicians" to collect pay for their services. Reports:

sonian," or "Botanic Physicians" to collect pay for their services, Reports:

That the petitioners represent, that "the Thomsonian physicians have formed themselves into a State society for mutual improvement and to establish due regulations respecting those who may become public practitioners," which they ask may be organised by law. They complain "that the law regulating the practice of physic and surgery in this State, operates unjustly;" that their "system of medical practice differs from that now sanctioned by law, so materially as to render it inconsistent and oppressive for them to conform to the requisitions of the legally established order of physicians;" and that "consequently they are deprived of the right of collecting pay for their services," which privilege they ask the legislature to grant to those who receive diplomas from the State Thomsonian Society. In short, they ask to be placed by law on a footing of equality, as to rights and immunities, with those who now enter the profession of medicine under the requirements of existing laws, without any obligations on their part as to qualifications, except such as they may voluntarily establish among themselves.

It is believed that it has never been the intention of the legislature to establish, or recognize by law, any particular mode or system of medical practice, and any attempt to do so would not only be unwise and impolitic, but, for many reasons, would necessarily fail of its object. The present laws regulating the practice of physic and surgery are doubtless designed to encourage the cultivation of science, to guard against the evils of ignorance in that most responsible profession which has the charge of the public health, and to secure to the people that guaranty of safety which is afforded in the assurance, that he who is authorized to practice medicine has at least devoted a reasonable time in acquiring a knowledge of his profession, and has submitted to the ordeal of an examination of his qualifications, by an au-

thorised and competent tribunal.

The regular term of study established by law is four years, or three years with a complete course of all the lectures delivered in any incorporated medi-The time thus required to be devoted in obtaining a competent knowledge of medicine and its collateral branches of science, an acquaintance with which is necessary to qualify the medical student for an enlightened discharge of the duties of his profession, has not been considered too much or unnecessarily burdensome; but, on the contrary, the opinion is becoming more prevalent among those best qualified to judge, that the standard of medical education should be elevated still higher, and more rigid rules imposed upon those who may seek to enter the profession. If it was only necessary to become acquainted with the principles of that philosophy, which teaches as one of its soundest maxims, "that the metals and minerals are in the earth, and being extracted from the depths of the earth, have a tendency to carry all down into the earth, or in other words, the grave, who That the tendency of all vegetables is to spring up from the earth: their tendency is upwards; their tendency is to invigorate and fructify, and uphold mankind from the grave." If the range of medical study was to be confined to "the Thomsonian Guide to Health," a few books on botany, and two or three Thomsonian medical periodicals, and the study of anatomy and physiology discarded as useless, as seems to have been the opinion of the president of the Thomsonian State Medical Society, in his answer to a committee of this house in 1840, then, indeed, the term of study required by law might well be considered unjust and oppressive; but presuming it is not the desire of the legislature to encourage so limited a range of medical inquiry, your committee cannot imagine it will be deemed politic or wise to establish or reorganise, by law, a State society entertaining and teaching these views, and seeking to give them importance and influence by the sanctions of legislative enacuments. If, then, the term of study at present required, is not too long to accomplish the designs of the legislature, it is submitted that the door of the profession is open alike to all; there is no exclusiveness or inequality of privilege; all are alike admitted who comply with the terms prescribed. There is no legal restraints imposed in the selection of medicine for the removal of disease. The licensed physician having had an opportunity of investigating to some extent the properties of the long catalogue of remedial agents, is at perfect liberty to select such as in his judgment shall be best adapted to the object in view; and if he shall prefer, in the treatment of any one disease, to employ "lobelia," "steam," "composition," or number 6," it cannot be doubted that his acquaintance with the human system, the pathology of disease, and the power of remedies, will ordinarily render these or any other agents more safe and successful in his hands, than in the hands of those who regard these qualifications as useless and unnecessary. It remains, then, for the legislature to determine, whether the standard of medical education shall be lowered to meet the wishes of the petitioners, and a particular mode or system of practice, which requires at most but a few months of time and study, shall be legally recognised as ample in its provisions, and safe in practice; or whether the Thomsonian, as well as all others, who may claim public confidence, and the immunities of the profession, on the ground of having conformed to the provisions of law, shall be required to come up to that standard of education indicated by the rules and regulations at present prescribed.

A part of the petitioners have only asked that the "Thomsonian physi-

A part of the petitioners have only asked that the "Thomsonian physicians" may be allowed the privilege of enforcing payment for their services. They pray "that a law may be passed immediately, recognising the obligation of a contract made with Thomsonian physicians, so as to enable them, or especially such of them as may be duly licensed to practise by the State or County Thomsonian societies, to collect pay for services rendered by them, as physicians." It may be worthy of remark, that notwithstanding the petitioners maintain "that all men, everywhere, should have the protection of the laws in their various callings, and should be furnished with the same legal remedy for enforcing the moral obligations of a contract,"

they nevertheless appear to be the advocates of restriction, and ask that this "legal remedy" may be extended especially to the Thomsonian physicians. But as it is hardly to be supposed the legislature will adopt a variety of grades or degrees of qualification, it remains to be considered whether the only legal remedy now existing against unlicensed practitioners, and which renders them incapable of recovering, by suit, any debt arising from their

practice, ought to be repealed.

All of the enactments regulating the practice of physic and surgery in this state, from that of the Colonial Assembly of the Province of New York, in the year 1683, to the present time, have contained some provision for enforcing compliance with the law. The act above referred to contained a penalty of five pounds against any person practising without a legal certifi-This was confined to the city of New York. In 1797 the first general law was passed, which contained a penalty of twenty-five dollars for practising without license. Since that period the penalty has varied, from time to time, until the act of 1835 repealed all penalties, leaving only the provision against the recovery of debt by suits. The effect of repealing this provision would be to admit all pretenders, of whatever description, to the same professional privileges as those who qualify themselves in conformity to present regulations. This, instead of carrying out the doctrine of equal rights and privileges contended for, would, in its effect, be very unequal, if it is supposed the law, without this or some similar provision, would have any binding force; for, while those who legally enter the profession would be required to devote years in qualifying themselves, and to submit to the ordeal of an examination, others, without being compelled to devote either time. study or expense, in preparing themselves, would be permitted to practise without penalty, and would possess the same legal remedy for enforcing payment for their services. Indeed, it appears to your committee, that the repeal of this provision would be, in effect, the repeal of all law regulating the practice of physic and surgery, so far as relates to qualifications; for the legal right to enforce payment would imply the right to practise, and it would be very much a matter of choice, and depend upon circumstances, whether men would take the legal steps to enter the profession, or some shorter and less expensive method.

The law regulating the term of study and qualifications of candidates for medical license, without some sanctions calculated to secure compliance with its provisions, would remain upon our statute book a dead letter. It might be regarded as an indication of the opinion of the legislature, but would have no more binding effect than regulations adopted by voluntary associations, and therefore had, perhaps, better be repealed; for, should the prayer of the petitioners be granted, it appears to your committee that it would be equivalent to a legislative decision that no particular term of study

or test of qualification ought to be established by law.

Although medical science does not depend upon the arm of the law for its encouragement and progressive improvement, but is sustained and impelled forward by a higher and more noble impulse, yet it cannot be doubted that legal regulations have contributed largely to its more general diffusion among the profession, and, consequently, the more extended advantages of its application, and hence should be regarded as a public benefit, important to the welfare of the people. Your committee have, therefore, come to the conclusion to recommend the adoption of the following resolution:

Resolved, That the prayer of the petitioners ought not to be granted.

DR. MOTT AT EPIDAURUS.

[The following remarks on a visit to the site of the Temple of Æsculapius are rich in many respects. They at least exhibit rare enthusiasm, inspired by the god of physic; and manifested in a novel manner.—Ep.]

We arrived in this celebrated valley in the latter part of the afternoon, after a somewhat fatiguing journey from Napoli. It is by no means exten-

city of Epidaurus.

sive, but a deep and picturesque ravine, as it were, between the mountains. Our feelings at arriving on this consecrated ground were peculiar and delightful, and such as cannot be well appreciated by any but a medical man. We eagerly sought out what may be supposed to have been the ruins of the Temple of the God of healing Art, dedicated to that deity, and built, it is believed, over the spot in this valley which he is related to have been born. We found in several places confused heaps of ruins, which however were not sufficiently defined to say positively to what character of edifice they belonged, or whether they were a part of the temple or of the ancient

Desirous of rendering proper homage to our great tutelary divinity, we examined carefully every group of ruins, in order that we might be sure of doing justice to the great object of our visit, and, after inspecting them all with the hope that we might discover some fragment of the shrine upon which the votive offerings were placed, or one of those tablets upon which, it is said, the cures of the great physician were inscribed, and which might enable us to identify the actual locale of the temple and its altar. We gave up the search in despair; and concluded to select the great amphitheatre as the most suitable spot for the performance of the ceremonial we contemplated; and accordingly prepared the necessary material for commencing operations.

This immense theatre, incredible as it may seem, would accommodate within its enclosure, I should imagine at least 30,000 persons. It is on the steep side, as usual on the hills, and seemed to us from its imposing grandeur and remarkable preservation, to be an appropriate place for our intended

oblation to the God Esculapius.

Let us stop for a moment to say a few words of this wonderful ruin. With the exception of that of Tramezas in Greece, and the Coliseum in Rome, and that of Nismes in France, it is not only the largest, but the most perfectly preserved edifice of the kind existing anywhere; and it would seem, from the extraordinary width of the seats, being twice that of any other we had visited, that it was admirably adapted, if not specially designed, for the comfort of invalids who probably resorted thither not only for the agreeable recreation of witnessing theatrical amusements and feats of gladiatorship, but also for medical treatment and advice under the renowned father of medicine in person. The poor as well as the rich, the lowly and the proud, the titled prince and the commoner of the land, irresistibly attracted by his fame and his great deeds, especially as the surgeon both of Jason and Agamemnon, flocked hither from all parts of the Continent, and even from Asia Minor, Egypt and Rome, and the distant Islands, to avail themselves of the consummate skill of the great master, who here, no doubt, within these noble walls, often personally officiated in his sacred rites and mysteries, and established, and held, and immortalised by his triumphant success, before tens of thousands of enraptured spectators, the first great clinique and cencours of our healing art.

The consciousness that I might possibly be standing on the very spot once consecrated by the presence of the great father of medicine, and where he delivered his oracles to adoring multitudes, and that I too, perhaps who might say, without egotism, that I had done the "medical state some service," was probably the only American surgeon who had ever visited this hallowed place, and that my voice, as once the commanding tones and inspired discourses of my great predecessor were, was now heard in its echoes through the same mountain ravine, produced together thrilling emotions of delight and trains of vivid thoughts, that language could but

poorly pourtray.

It must be admitted, from historic evidence furnished by Homer and others of the siege of Troy, that even anterior to that remote period, both Esculapius and his two sons had unquestionably greatly distinguished themselves by remarkable cures in medicine or surgery, especially in the latter, to have attained a reputation so brilliant and extended as was that of these three

famous Greeks. What they did probably within this beautiful valley, or within the enclosure of this magnificent amphitheatre, and in various other places, was no doubt as great for those days as have been for our times the

exploits of professional men among the moderns.

As a traveller and humble representative of my profession from a new world, a terra incognita to him who has rendered this spot so illustrious and enduring in renown, I felt it my duty to make a propitiary sacrifice to his revered memory and name, and to his wide spread reputation as the ruling deity of our invaluable art. Having directed my servant, before leaving Napoli, to provide for me one of the tutelary emblems of Esculapius, the barnyard cock, of glossy black plumage, I now assembled my companions in the arena of the theatre to listen to a Grecian clinique by an American surgeon, and to witness the performance of a surgical operation which, I may venture to say, never before had been performed in this ancient land, even by Esculapius himself or either of his gifted sons. The victim designated for this honourable sacrifice having been transported from Napoli on one of the baggage horses, I requested my servant to introduce him into the arena. After a suitable exordium, setting forth the nature and gravity of the case, the solemnity and sacredness of the place, and the difficulty and importance of the operation about to be performed, I commenced, scalpel in hand, previously and properly denuding the neck of the feathers, to lay bare the common carotid artery of one side, the patient being firmly held upon one of the seats of the theatre, now again after a lapse of 3000 years, to be devoted to anatomical and surgical uses. With the able assistance of my excellent friend and companion, Dr. Jackson, of New York, after having laid bare the important vessel, and with proper caution separated it from the deep jugular vein and par vagum, I introduced carefully underneath it, by means of a curved eyed probe, a silk ligature, and then tied the artery. After waiting a few moments, and finding that the animal, so far from experiencing any inconvenience from this modern and dangerous operation, submitted to it with a grace and heroic resolution befitting the distinguished honour conferred upon him, we concluded, upon consultation, to tie the carotid of the other side, which was also done in a similar manner. I remarked to the pupils present at this Greco-chirurgical clinique, that this was the twentieth time I had tied this important vessel, having performed it nineteen times on the living human subject in my native country. It is a coincidence not improper, perhaps, to mention, that shortly before leaving my own country the last time I tied the carotid with success on a young man who, about a year before, had the same artery tied on the other side, making perhaps the second remarkable instance of a human being recovering after both these arteries had been successfully secured.

Though we found our feathered patient, also had apparently sustained no serious injury, we deemed it suitable to the occasion to make a further and more solemn sacrifice by dividing the spinal marrow of the intrepid chanticleer, and thereby terminating his martyrdom, and giving a brilliant finale to our ceremonies by offering up his whole life to the god of physic. The body was then transferred to one of the baggage-horses and carried with us to Athens, where we arrived two days after. And to complete the funereal rites, we there devoted his remains to the cause of gastronomy, by having them served up to us in an excellent supper under the walls of the Parthenon; flattering ourselves at the same time with the consoling idea, that among the gorgeous array of canonised deities, heroes, kings, generals, orators, and poets whose statues once adorned every summit and quarter of this proud city, she who was the tutelary goddess of Athens, Minerva, the protectress of Science, and especially that form of this deity called Minerva-Hygeica, so named after a daughter of Esculapius, was looking down from the Acropolis with smiling approbation at this convivial result of our labours in honour of her renowned father. The last finishing stroke was to secure from the wreck of the victim as os hyoides, commonly called the merry-

thought, for my museum in America.

University of Pennsylvania.—Medical Department.—The Medical class of this Institution numbered, during the last session, 363 matriculates.

At a Public Commencement held the 26th day of March, 1842, the following gentlemen received the degree of Doctor of Medicine.

| | RESID. SUB. OF ESSAY. | NAME. | RESID. SUB. OF ESSAY. |
|----------------------------------|--|-------------------------------------|--|
| Anderson, J. Q. | N. C. Cynanche Trachealis. | | N. C. Menstruation. |
| Anderson, T. J. | Ala. On Hygiene. | Magrudor, A. L. C. | Miss. Congestive Fever of |
| Ashton, Henry | Va. Intermitting Fever. | Manry, Josiah | Mississippi. Va. Acute Gastritis. |
| Banister, Monro | Va. Puerperal Fever. | Martin, Franklin B. | |
| Banks, W. H. | N. C. Puerperal Peritonitis. | Mason, John K. | N. Y. Scrofula. |
| Batte, W. H. | Va. Dysentery. | Meade, David E. | Va. Emotional Tears. |
| Baxter, Oscar F. | N. C. Parturition. | Mettert, John H. | Va. Leucorrhœa. |
| Blaney, J. V. Z. | Del. The Inv. of the Veg. | Miller, Lewis A. | Va. Scarlatina. |
| Brakeley, P. F. | Mat. Med. N. J. Anasarca. | Mitchell, Henry H. | Md. Cholera Infantum. |
| Brinson, W. A. | Ga. Congestive Fever of | Montgomery, H. F. | N. Y. Dislocation of the |
| Billison, Willi | the South. | MATERIA I I D | Os Humeri. |
| Brown, Walter A. | Va. Cynanche Trachealis. | M'Farland, J. P. | Tenn. Fungus Hæmatodes. |
| Bryan, Jesse G. | N. C. Dysentery. | M'Nairy, W. S. | Tenn. Intermittent Fever. |
| Budd, Andrews E. | N. J. Prolapsus Uteri. | Old, Hollowell | Va. Peritonitis Puerpe- |
| Burtt, John L. | Ohio. Dietetics. | Page Mann A | ralis. Va. Scarlatina. |
| Cage, Edward R. | Tenn. Cholera Infantum. | Page, Mann A. Palmer, W. P. | Va. Irritable Uterus. |
| Chamberlaine, S. | Md. Urethral Stricture. | Peete, John S. | Tenn. De Febre Biliosa |
| Christian, P. H. | Va. Disease of Kidney. | 2 3000, 001111 20 | Remittente. |
| Clements, W. W. | N. C. Intermittent Fever. | Pennypacker, M. J. | Penn. Respiration and |
| Conrad, Daniel | Va. Acute Gastritis. | | Animal Heat. |
| Cook, Lewis C. | N. J. Reproduction. | Phillips, James W. | Tenn. Idiosyncrasy. |
| Cornick, W. T. | Va. Scarlatina. [rhages. | Postlethwaite, J. | La. Fever. |
| Crudup, E. A. Currie, Shelby | N. C. Spontaneous Hæmor- N. C. Dyspepsia. | Pritchett, E. H. | Va. Metritis. |
| • | | Purnell, G. W. | Md. Icterus. |
| Dailey, R. W. Davis, W. W. | Va. Amenorrhæa. N. C. Acute Gastritis. | Ray, Duncan W. | S. C. Forensic Medicine. |
| Dennis, George | Md. Typhus Fever. | Reid, James M. | Ky. Scarlatina. |
| | Scotia, Acute Peritonitis. | Revely, Thomas C. Rider, William G. | Va. Neuralgia. |
| Dickinson, J. | Tenn. Delirium Tremens. | Robinson, Moore | Md. Tenotomy. Va. Pathology and |
| Dozier, J. A. | Ala. Hydrocele. | Robinson, Moore | Symptoms of Pneumonia. |
| Edgar, S. M. | Tenn. Gunshot Wounds. | Roper, William W. | |
| | . Croix, Blood. | Saulsbury, Gove | Del. Rheumatism. |
| Gravatt, J. J. | Va. Scarlatina. | Scholl, Griffith, J. | Pa. Phlegmasia Dolens. |
| Graves, A. W. | Va. Hæmatemesis. | Shoemaker, Edwin | Pa. Acute Gastritis. |
| Green, J. W. | Va. Fractures. | Shove, George | Mass. Therapeutics. |
| Greenbank, R. M. | Phil. Autumnal Fever of | Steele, Robert J. | N. C. Phthisis. [West. |
| C | Q. Anne Co. | Stevens, R. H. | Mo. Milk-sickness of the |
| Gwathmey, W. H. | Va. Bilious Rem't Fever. | Strother, William | Va. Dyspepsia. |
| Hammett, G. A. | R. I. Akenesic Power. | Taliaferro, B. F. | Tenn. Hydrocephalus. |
| Hawkins, W. J. | N. C. Indigestion. | Tannor, John G. | Va. Acute Gastritis. |
| Heard, Joseph M. | Ala. Depletion. Va. Aneurism. | Taylor, Thomas B. | Flo'a. Spermorrhoea. |
| Henkel, S. P. C. Henry, E. W. | Md. Cholera Infantum. | Todd, William Tompkins, F. O. | Ky. Inflammation. Va. Menstruation. |
| Hilsman, J. | Ga. Gonorrhea. | Towles, Thomas | La. Scarlatina. |
| Hogan, James | Mo. Prolapsus Uteri. | Trippe, Jesse E. | Ala Acute Gastritis. |
| Hollingsworth, S. I | | Tunstall, Robert B. | Va. Delirium Tremens. |
| Hood, James M. | Ky. Circulation of the | Tyler, Samuel | Md. De Puerperali Peri- |
| Hotchkiss, J. T. | Pa. Rubeola. | | tonite. |
| Hunter, J. A. | Va. Theory of Menstru- | Waddell, James A. | Va. Iodine. |
| Hutchingen M D | ation and Amenorrhea. | Walker, John B. | Mass. Hydrocele. |
| Hutchinson, M. P. | Pa. Prolapsus Uteri. | Walton, Richard P. | |
| Johnes, Theodore | N. J. Hydrophobia. | Ward, Edward H. West, Francis | Phil. Amaurosis. Va. Iron. |
| Jones, Josiah N. | Va. Intermittent Fever. | Wharton, Albert C. | |
| Kane, Elisha K. | Phil. Kiesteine. | Tradition, Tradeit O. | action of medicine. |
| Kennon, Richard | Va. Means of easing the | White, John F. | Va. Prolapsus Uteri. |
| | pains of Parturition. | Woodland, T. W. | Md. Dyspepsia. |
| Little, R. Parker | | Wright, John J. | Va. Fractures. |
| Littlefield, E. B. | Tenn. Deformity from An- | Yancey, Henry | N. C. Emetics. |
| Logan, John D. | Pa. Arthritis. | Young, Thomas H. | Miss. Aneurism. |
| | | | |
| | | | |
| | | | |

At the Commencement in the Arts, held in July, 1841, the following gentlemen received the degree of Doctor of Medicine.

L. N. Burge, Joan T. Clarke, M. P. Linton,

Ga. Conception.
Fa. Gonorrhoea.
Pa. The Seven Eras of Women.

John Miller, W. M. Thompson, Pa. Intermittent Fever. Va. Acute Gastritis.

AMERICAN

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No. 11.

For the American Medical Intelligencer.

ART. I.—ON THE ECLECTIC TREATMENT OF DELIRIUM TREMENS.

BY THE EDITOR.

In a recent work (Practice of Medicine, vol. 2, p. 346. Philad. 1842) we have stated, that the course pursued by us, in the treatment of delirium tremens, has been entirely eclectic, in many cases expectant, and that the results have been such as to satisfy us. Under the view which we entertain of the nature of the affection,—that the irregularity of nervous action is usually induced by the withdrawal of an accustomed stimulus, and that the recuperative powers are, generally, entirely sufficient to bring about the necessary equalisation, we have treated the mass of the cases which have fallen under our care without either excitants proper, or opiates. In the first instance, an emetic is given at times, if the patient is seen whilst labouring under the effects of a debauch, or any particular reason exists for its administration; and afterwards a state of tranquillity in the chamber is enjoined—the intrusion of too much light and noise being prevented; and, where the stomach will retain it, gently nutritious and easily digestible diet is prescribed; the bowels being kept open by gentle cathartics: and this has comprised the essential part of our treatment. In time, the hallucinations have disappeared, sleep has returned, and entire restoration supervened.

The preceding remarks are a proper prelude to the statistical account of the Women's Lunatic Asylum, at the Philadelphia Hospital, for the years 1840 and 1841, which is under our charge during the six months commencing on the first of November, and ending on the first of May; and under that of Dr. Pennock for the other half of the year. It may be proper to add, that since November 1, 1841, to the present time, (May 1,) not a drop of alcoholic liquor has been used in the treatment of delirium tremens in the Women's Asylum, although some severe cases in the third stage have occurred, which,

notwithstanding, terminated most satisfactorily.

11

Patients admitted into the Women's Lunatic Asylum of the Philadelphia Hospital.

YEAR 1840.

| | | | Cases admitted. | Cured. | Died. |
|-------------------|--------------|---|-----------------|--------|-------|
| Intoxication, - | | - | 25 | | - |
| Delirium tremens, | first stage, | - | 34 | 34 | _ |
| do. | second stage | 4 | 10 | 10 | _ |
| do. | third stage, | • | 4 | 3 | - 1 |

The fatal case was not seen by us. The patient died on the morning after her admission into the hospital, and had been treated in the city for nearly a week previously.

YEAR 1841.

| | | Cases admitted. | Cured. | | Died. |
|---------------------------|----------|-----------------|--------|---|-------|
| Intoxication, | | 19 | 19 | | _ |
| Delirium tremens, first s | tage, - | 21 | 21 | | |
| do. secon | d stage, | 9 | 9 | • | |
| | stage, | 6 | 6 | | _ |

For the American Medical Intelligencer.

ART. II.—Account of the POST-MORTEM examination of a Case of DEAFNESS, in which were found an abnormal State of the OSSI-CULA AUDITUS, with other irregularities in one Ear, and Destruction of the MEMBRANA TYMPANI and disorganisation of the soft parts in the Tympanum, &c. in the other.

BY JOSHUA J. COHEN, M. D. OF BALTIMORE.

[The following valuable communication was read before the American Philosophical Society, at a recent meeting; and is noticed in the "Proceedings" of that body. It has rarely happened that opportunities have been embraced for examining into the condition of the organ of hearing in cases of deafness, or that they have fallen within the observation of an investigator so competent as the author of this Paper.—Ed.]

The facts contained in the following paper have been deemed worthy of note, as adding one more example to the few on record of the undeveloped or rudimentary condition of a portion of the organ of hearing in man. For this reason the case has been thought of sufficient interest to claim the honour of the attention of the members of this society. Although the irregularity belongs to a very minute structure of the human body, it is nevertheless connected with an important organ, whose whole structure is minute, and in which every deviation, however slight, from the usual normal state, must influence, more or less, the proper exercise of its function.

Those members of the society who have been engaged in investigating

Those members of the society who have been engaged in investigating the pathological conditions of the organ of hearing, and have felt, like myself, even with our present improved methods of investigation, the difficulties attendant thereupon, from the want of a series of well-observed facts, will, I am sure, receive with due attention, every contribution that may tend, in the slightest degree, to illustrate the condition upon which manifestations

of disease depend.

CASE.—While engaged in September last in some investigations upon the ear, at the Baltimore County Alms-house, my attention was called by Dr. Cunningham, one of the resident physicians, to the case of a man (æt. about 40) who had just died, and who, during his residence of six months in the

house, laboured under great difficulty of hearing. He died of tubercular phthisis, and the examination which Dr. C. made, showed the usual condi-

tion of the lungs in that disease.

Glad of the opportunity, so rarely afforded, to investigate post-morten the condition of the organs of hearing of one who, it was known, was deaf, I readily availed myself of the information, and proceeded at once to examine the state of the brain and seventh pair of nerves. These parts were carefully dissected, but there was observed no change from the usual condition.

In order to examine at greater leisure, and more carefully than I could do at the moment, the several parts of the minute apparatus of the organs of hearing, and particularly to note the condition of the Eustachian tubes, a portion of their structure which has lately attracted much attention in cases of deafness, I removed the whole lower part of the skull, so as to preserve the connection of these tubes, and on the following day observed the appearances now to be described.

Eustachian Tubes.—These were found in nearly the same state on each side: their guttural orifices were unusually large. The cartilages around them were much developed, particularly that of the right tube. The tubes themselves were unobstructed in their whole extent, and their diameters

even larger than common.

Right Ear.—The external ear and meatus presented the usual appearance—the latter having been sawed off so as to expose the membrana tympani; this membrane, instead of the uniform, clear, semi-transparent and glistening character usually observed, with its concavity only towards the middle, was of a dull and dark appearance, irregular, and evidently thickened; the concavity extending from the circumference, saucer-like: the whole membrane being drawn inwards.

The bone was now cut through so as to show the cavity of the tympanum. This was found to be very much narrowed by the approximation of the membrana tympani to the opposite walls; and, instead of a clear, empty space for the ossicles, &c. the tympanum was filled with muco-fibrous membranes passing from the membrana tympani to the posterior wall, pre-

senting a cellular structure.

Perceiving some irregularity in the ossicula, I carefully divided these membranes, in order to get a distinct view of the bones in sitû: when the tensor tympani muscle was exposed, I found that the membrana tympani with its ring of bone was only bound down in its place by this connection; the chain of bones being incomplete. Before separating this bond of union, I noted the unusual shortness of the tendon of the muscle of the malleus, and that it was attached to the handle of this bone throughout its whole length, thus drawing down the bone, and with it the membrana tympani to within a line of the cochleariform process. This tendon having been divided, and the membrana tympani with its ring of bone separated, the following abnormal state of the bones was seen:—

Ossicula Auditûs.—The malleus was normal, but its relation to its pro-

per muscle irregular, as above described.

Incus.—This bone was undeveloped. Its size and form will be better understood by a reference to the accompanying drawing. It has a small articulating surface, by which it is closely attached to the corresponding surface of the malleus—from this a very short process extends backwards towards the mastoid cells, not reaching, however, beyond the circumference of the membrana tympani, to which it was attached closely by a thick fold of membrane reflected from the latter. This constituted the whole bone.

Stapes.—The stapes was wanting, with the exception of the base—this was nicely adapted to the size of the fenestra ovalis, leaving, as is usual, a small space all around for the circular ligament, by which it was retained

in place.

Üpon the tympanic side of this basis, and almost filling up the fossa, there

was a quantity of membranous substance, which connected itself with the cellular structure already described. The fenestra rotunda was covered by the same.

Muscles.—The muscle of the malleus (tensor tympani) was strongly developed: its tendon was short and very thick, and its attachment peculiar, as above mentioned. The muscle of the stapes (stapedius) existed, but there was no tendon at the small orifice at the summit of the pyramid. Thus, in regard to both these muscles, the development seemed in accordance with the function required of them. In the one case, as no stapes existed, the stapedius was only partially developed. In the other, the tensor tympani had alone to keep the membrana tympani in place, and it seemed to do so by its short thick tendon.

The other parts of the organ appeared to be in a normal state.

Left Ear.—External ear and meatus were healthy. On cutting away the meatus, the membrana tympani was found to have been entirely destroyed, with the exception of a very thin slip at the anterior inferior edge. The tympanum was thus fully exposed: it contained a quantity of yellowish, fetid matter, and its lining membrane was completely disorganised.

Ossicula.—The malleus, though its handle was depressed, was still attached to the incus; but the union was slight, the ligamentous and muco-

fibrous connections being involved in the general disorganisation.

The incus was in place: its long crus extended to the stapes, but it merely rested upon the latter, the bond of union being broken up, and the least mo-

tion separating the bones.

The stapes seemed to stand merely in its fossa over the fenestra ovalis; it was not bound down by its appropriate band, being easily moved from its position. The ligament (ligamentum annulare bas. stap.) forming the important connection between its base and the surrounding bone was entirely destroyed.

The tendon of the tensor tympani was disorganised, and that of the sta-

pedius destroyed.

The whole condition of the tympanum showed a recent active suppuration, which did not confine itself to this part: the vestibule was penetrated, as well as the mastoid cells; the latter were covered with pus.

The cochlea and one of the semicircular canals were examined a day or two subsequently—but there was nothing remarkable about them, at this

time, worthy of note.

Having completed the examination, it became a matter of great interest to me to know something more of the man's hearing, and in reply to my inquiries on the subject, Dr. Cunningham was good enough to address me a letter, in which he says, "The man had resided in the house six months, and it was observed by the nurses of the hospital that his deafness had considerably increased from the time of his admission to that of his death. During the latter part of this time, the difficulty of hearing was so great as to preclude any conversation with him." "An inmate of the house," continues Dr. C., "has lately informed me that he knew W. some six or seven years ago, at which time he was in the habit of attending the markets: he was somewhat deaf even at that time, but could hear when spoken to in a moderately loud tone. He also informed me that he noticed W. when addressed, to incline his left ear to the speaker, from which, I suppose, we must infer, that the loss of the faculty was less on that side."

From this information, together with the facts disclosed by the post-mortem investigation, I think we are justified in the conclusion, that the faculty of hearing in the right ear was either entirely wanting, or was very much impaired; for the custom of turning the head round, so as to make use of the left ear, must have been very decided to have been remembered after the lapse of years; it was doubtless a habit that had become identified with his person. Independently of the general inference that every deviation from the normal state of an organ must be attended with an impairment, if not a

loss of the function of that organ, the irregularity in this (right) ear was very great, and obviously calculated, from the known laws for the propaga-

tion of sound, to impair its communication.

Had the membrana tympani been capable, in its abnormal state, of communicating sonorous vibrations, the relation of the malleus, in contact with it, to the parts within, would have conducted them indirectly to the nervous expansion within the labyrinth; for it will be recollected, the chain of ossicles was broken up by the absence of an important link. But the tense condition of the membrana tympani, as it here existed, was not well calculated for the communication of sound, had the other parts of the organ been perfect. The experiments of Savart and Müller show that under this state of a membrane, the intensity in the communication of sonorous undulations is much diminished, and Dr. Wollaston, in applying the principle to the membrane of the ear, found, by experiment, that a temporary imperfection of hearing always resulted when it was made tense. It is true that the experiments of Dr. W. showed that this incapacity had reference only to certain sounds; (for when the membrana tympani was made tense, grave sounds only were rendered inaudible;) still, for the perfection of hearing conversation, there should be an equal capability both for acute and grave sounds. As to the influence upon the function of the ear, of the several other parts

As to the influence upon the function of the ear, of the several other parts in their abnormal condition, many suggestions offer themselves to the mind. It may be worthy a passing inquiry, how far nature may have intended, by bringing down the handle of the malleus in such close proximity to the walls of the labyrinth, to compensate for the usual communication, through the

chain of bones, to the vestibule.

One more remark may be made; that if the membrana tympani had been capable of communicating vibrations to the air within the tympanum, the base of the stapes, or operculum, like the same moveable plate in some of the reptiles without a tympanum, offered no impediment to the communica-

tion of the undulations to the fluid of the labyrinth.

In regard to the condition of the left ear, the result of disease, we are much more familiar, and can readily understand, under the supposition that the right ear was unfit to perform its function, how the hearing of the individual, towards the close of his life, became so much impaired, or was probably entirely lost. It is likely, judging from the state in which it was found post-mortem, that the membrana tympani was for a long time in a state of ulceration, with perforation; and that this was its condition six or seven years ago, the time spoken of in reference to the hearing. This is a very common cause of impaired hearing in scrophulous persons. My observations in numerous cases have shown, that in such cases, where the perforation is of small extent, the hearing is only partially lost or slightly impaired. Where the ulceration extends, so as to produce entire loss of the membranæ tympani even of both ears, although the hearing is much more impaired, yet if the disease be limited to this membrane only, it is not so much injured as would be, à priori, supposed. Even when the disease is allowed to extend to the parts within the tympanum, and the malleus and incus come away, if the ulceration do not embrace the ligament and membranes binding the stapes to its place, the loss of the faculty is still not great. Should, however, this part become affected, the stapes generally comes away, the inner structure of the ear becomes involved, and loss of the faculty is the result.

I cannot but believe, that such was the progress of disease in this ear. The increase of the deafness was doubtless owing to the increase of the ulcerative process in the ear, corresponding to the development of the same condition in the lungs. The whole membrana tympani was destroyed; the fibrous or fibro-mucous tissue of the tympanum became implicated; the ligament or membrane connecting the stapes to the fenestra ovalis was destroyed, and the inner and more important parts of the organ were involved. That this extension of the ulceration could not long have existed, to the degree found at the post-mortem examination, is probable, from the position

of the ossicles. I have generally found that when this destructive disease is not soon arrested, the malleus and incus come away. In the present case, the falling off of the vital powers seems to have involved the whole texture of the tympanum at once; the bones were undisturbed in their position, the stapes stood in its place, whilst all the surrounding textures were destroyed, and very great, if not entire loss of the faculty was the result, in the short period he remained in the hospital.

Instances of irregular development of the ossicula auditus, and other malformations of the ear, are not entirely wanting in the works of anatomists. Pathologists, however, have had few opportunities of presenting such cases in connection with impaired function of the ear, previously observed. gagni makes mention of two cases, certain of the features of which bear some resemblance to our present one. In speaking of the various causes of deafness, he says, "It is not to be doubted but that their number may be increased every day, as, for instance, when innumerable membranes drawn from all sides, and intersecting each other, mutually occupy the whole cavity of the tympanum; as I found in that ear, in regard to which marks were not wanting, that the man had not heard at all, or at least very little; and in like manner, when any muscle out of those which serve to the motion of the little bones in the tympanum is immovable and contracted, as I found in another man, who, when he was alive, if any one could have divined, would not, I believe, have been interrogated, to no purpose at all, concerning the certain disorders of that ear."

It may be well to observe before concluding, that if the abnormal state of the incus and stapes, as found in the present case, be the result of an arrest of development, it would go to confirm the opinions of Meckel rather than those of Cassebohm in regard to the order of development of the ossicula: for the details of which I beg leave to refer to the well known work on anatomy of the former. And in regard to the small portion of the stapes that exists in our case, the remarks2 of Professor Tiedemann of Heidelberg seem apposite. In describing two cases of peculiarly formed stapedes, he remarks that such is the infinite variety presented by the animal organisation in all its parts, that we cannot fail to observe a well marked gradation from the most simple to the most perfect of beings, and that every aberration in the form of any of the organs of the upper groups approximates them to that of the inferior ones. In illustration of which, Professor T. describes two cases, one of them in a new-born child, the other in an adult, where the stapedes were so altered in form as closely to resemble the columella of the ornithorynchus, the echidnus, and that of birds and reptiles.

In the case described in this paper, does not the absence of every part of the stapes, with the exception of the base, liken it to the osseous operculum found in the bombinatores, land salamander, and cæciliæ; of the effect of which, in the communication of sonorous undulations I have already

spoken?

ART. III.—PRUSSIATE OF IRON IN INTERMITTENTS.—CONGESTIVE FEVER.

[Extract of a letter to the Editor, from J. E. Craighead, M. D., Somerville, West Tennessee, dated April 26, 1842.]

"In the absence of sulphate of quinia, as we got out of it last year, I have used prussiate of iron very successfully in intermittents last fall.

"The most successful plan I have found for treating the congestive fever of this country is to bleed in the cold stage, purge freely, and break up the

¹ De Sedibus et Causis Morborum.

² Journal Complem. du Dict. des Sc. Med. Nov. 1820.

chain of morbid actions by powerful doses of tonics, bark, or sulphate of quinia. The sulphate of quinia we usually get here is so adulterated, that I frequently use five grain doses every two hours without any unpleasant effects. I have never yet lost a case of congestive fever, though I have had a good many during the last six years."

ART. IV.—ON CONGESTIVE FEVER.

[Extract of a letter from Dr. Jos. J. Thaxton, Williamsville, Person county, N. C., to Professor Pancoast, dated March 25, 1842.]

In your letter you mentioned the congestive fever that prevailed among us in this county; my notes were not made with much exactness, nor did I enter them in my regular note book, in consequence of their having been made from the first cases, and from my not having at the time considered it as a distinct fever, but one that was influenced by some local cause, and thus differing from the ordinary fevers of the season. It afterwards invaded a great portion of our state, depriving us of many of our first citizens, and pro-

ducing great terror in every neighbourhood.

On inquiring into the manner of their attack, I was informed that they had appeared drowsy for several days previously, and had frequently disturbed bowels, with copious discharges, which resembled in consistence and colour newly made cider, from sweetening apples, which discharges continued for several days, and for which calomel was generally given by some of the domestics—from ten to twenty grains—with no other effect than the addition of a sediment resembling the refuse of drained ashes. They also complained of pain in the head, back of the neck, and shoulders, and sometimes of pain in the region of the umbilicus. The temperature of the body was very high; the extremities were cold; the pulse 125, and labouring, as if the passage of the blood was difficult; mouth dry; tongue coated with a dark brown fur—in one case very smooth and shining—pulsations of the heart not felt at the lower portion of the sternum or sixth rib. The stethoscope enabled us to hear the circulation through the heart, which was very laborious, and indicated a dull and sluggish action; the liver seemed inactive, and sometimes so enlarged as to be felt below the ribs.

After the lapse of a few days from the cessation of the first diarrhæa, a second would supervene, the discharges containing scybala of the size of a hazle-nut or larger, preceded or accompanied by tympanitis, which was considered by many as a fatal indication. After its continuance for a day or two, the sufferer would shrink into a languid and almost insensible state, and the dejections pass involuntarily; and thus death would ensue,—the pulse

being never below 125, and barely distinct at the wrist.

There was a peculiar odour through the entire disease, and a cessation of the secretions, with the urine scanty and high coloured. Medical aid was generally neglected until the cessation of the first diarrhæa, and the supervention of great heat of the body, with cold extremities; the heart labouring greatly. We resorted to venesection, to not more than ten ounces, in consequence of the want of tolerance of the system, and the blood ceasing to flow. Frictions, with flour of mustard, and other excitants were also employed; and after the lapse of a few hours there was a greater tolerance, so that the blood flowed much more freely, which generally restored the warmth of the extremities; but there remained a disposition to periodical returns of coldness of the extremities, which was met by the frictions and sulphate of quinia. This periodicity was more distinct in the advanced stage.

Owing to the irritability produced by calomel, I ordered the blue mass with Dover's powder—four grains of the former and ten of the latter, every two hours, until five or six were taken and a discharge was produced; the tympanitis and diarrhæa supervened after a few days, and from the scybala

voided I was induced to use injections for their removal, with sinapisms over the umbilical region. The congested and dormant state of the liver was generally relieved by blisters over its region. In the collapsed state, which I found to be a general accompaniment of the disease, it became necessary to use tonics, viz. bark, &c.

I neglected to state that, in several cases, there was a slight eruption

about the face, neck, and shoulders, resembling miliary pimples.

BIBLIOGRAPHICAL NOTICES.

Gerhard's Lectures on Diseases of the Chest.1

These Lectures were originally published in the "Examiner," of which the author is one of the editors. The volume is in double column, and in type as set up in the pages of that journal; hence, the author apologises in the preface for "numerous errors of style," and "for those typographical errors which may strike the reader;" and the apology merits reception. As much weight may not perhaps be given to the reason assigned by Dr. Gerhard for having made few or no references to authors, "these," he remarks, "seemed unnecessary, for the history of the diseases of the chest is so well known, that there is little difficulty in determining the source from which the recent discoveries have originated;" and he adds, farther on, "the lectures included in this volume contain the results of the author's observation, derived indirectly from the different authors who have written on the subject, but in all cases verified at the bedside or in the amphitheatre. They are not, therefore, properly a compilation, which would require a citation of authorities, but are immediately deduced from clinical observation."

It is immaterial what appellation is given to the work. It contains the results of the investigations of distinguished practitioners, in all cases, according to Dr. Gerhard, carefully observed and verified or disproved by himself; but such verification or disproval does not, in our opinion, deprive those preceding observers of the credit to which they are justly entitled, or diminish the propriety of citing them as authorities. It would have been important, too, we think, to the inquirer, that such reference should have been made, inasmuch as it would have enabled him to see whether the statement were made by others than the author, and to separate that which the author had suggested from that which had emanated from his predecessors and contemporaries. Besides, there are many topics in the work on which difference of sentiment still exists, and in regard to which it would have been proper to state that they are still unsettled. For example, Dr. Gerhard remarks that "passing from the root of the lung a gradual diminution is found in the loudness of the bronchial sound, but it is still heard as far as the summit, and much more distinctly on the right side than on the left. The difference in the two sides arises from the anatomical structure; for the tubes leading to the upper part of the right lung are shorter and larger

Lectures on the Diagnosis, Pathology and Treatment of the Diseases of the Chest. By W. W. Gerhard, M. D., Lecturer on Clinical Medicine to the University of Pennsylvania, Physician to the Philadelphia Hospital, Blockley, &c. &c. Large 8vo. pp. 157. Philad. 1842.

than those going to the left, on which side the large bronchus passes under the aorta, and is therefore much longer and more tortuous than upon the right. The larger but shorter tubes of course approach much more nearly than the longer and smaller ones to the physical condition of the trachea, in which the air circulates with such freedom as to give rise to the loudest double blowing sound. The louder blowing sound exists on the right side, both at the anterior and posterior part; hence a given amount of induration of structure, which may tend to increase the loudness of this sign, will be much more perceptible on the right side than on the left—while, on the other hand, a perfectly natural peculiarity may be mistaken for disease. The blowing sound, if it be heard only on the right side, must be well characterised to become a sign of disease, and is not of much value unless combined with other corroborative evidence."—p. 29.

The reader would naturally conclude, from these observations, that no question could exist as to the fact of this difference of sides; yet Fournet -an excellent observer-has satisfied himself, that in persons presenting all the characteristics of healthy lungs, the sounds of inspiration and expiration are precisely identical in all corresponding points. In the few persons in whom he detected a slightly greater development of the expiration under the right than under the left clavicle, there were some motives for a doubtful opinion respecting the state of the lungs. M. Fournet expresses, indeed, the opinion from the physical condition of the two lungs, that there is no reason why they should furnish different respiratory sounds. Again, another practised auscultator-Stokes-dwells especially on the importance of the "discovery" made by him, that in many persons there is a natural difference between the intensity of the murmur in either lung; and in such cases, "with scarcely an exception, he found the murmur of the left to be distinctly louder than that of the right lung." It would appear, indeed, and such—as we have elsewhere said'—is the result of our own observation, that, at times, there is no marked difference between the two sides; that, at others, the intensity of the inspiratory murmur is greater on the right side, and at others on the left.

Again, Dr. Gerhard states, that in gangrene of the lungs, as an average result, about one half of those attacked die. "In hospitals, the mortality is rather greater, amounting to three fifths, while in private practice, it is probably about two fifths;" whilst, on the other hand, Dr. Craigie describes it as a disease, "the presence of which it is difficult to distinguish in the early stages from that of other diseases of the lungs; its determining causes are totally unknown; and it is not known that, in any genuine instance of it, the patient has made a recovery."

We are aware that there are indolent individuals in the ranks of the profession, who desire but the *ipse dixit* of the writer of any work, and who would rather not be puzzled by any conflicting testimony, preferring even error to uncertainty. Yet these, happily, are becoming daily fewer and fewer, and a deep and abiding search after truth, fostered by a well founded and judicious scepticism, is gradually dispelling the baneful influence of the verba magistri, under which medical science has so long suffered. We would, therefore, have greatly preferred the citation of authorities for and

against many of the positions assumed by the author of the work before us; still, we find a sufficient excuse for the omission, not in the reasons assigned in the Preface, but in the fact, that it consists often of reports of lectures, in which we can readily comprehend such citation might not have been convenient or practicable.

The greater part of the volume is occupied with lectures on diseases of the lungs; the remainder embraces diseases of the circulatory system; on all of which subjects there is much interesting and valuable matter. On the therapeutical portion-to which much less space is given than to the diagnosis -we would have made some comments, but our space will not admit of them.

The Western Lancet.

This is a new candidate for the professional favour, of the West more especially. It appears in a good dress; and its execution is creditable to its editor. It consists of Original Communications, Bibliographical Notices, Miscellaneous Selections, and Intelligence, and an Editorial Department; and is to appear monthly, at three dollars per annum, payable in advance. "Uninfluenced," says the editor, "by sectional or party interests, and free from the debasing effects of clique government, we will in all sincerity endeavour to promote harmony and unity of action, and never permit our journal to become a medium for conveying off the debris of personal collisions."

We heartily wish Dr. Lawson every success.

Coates's School Physiology.2

This little volume strikes us as well adapted for the object which the author had in view. It contains, in epitome, an account of such phenomena, presented by the living body, and especially by that of man, as could be embraced with propriety in a work adapted for the instruction of the young. We can recommend it conscientiously and strongly to those who are engaged in the most honorable avocation of developing the powers of the youthful mind. We have repeatedly taken occasion to urge the importance of physiology as a branch of popular education, and are gratified to learn, that this view is becoming more and more embraced by the intelligent part of the community, under whose combined opinion all important charges in public instruction are sooner or later effected.

Trimmer's Geology and Mineralogy.3

This work does not appertain directly to the profession of medicine. Yet it is on a subject with which every physician ought to be more or less ac-

1 The Western Lancet, devoted to Medical and Surgical Science. Edited by Leoni-

das Moreau Lawson, M.D., May 1842. 8vo. pp. 28. Cincinnati, 1842.

Physiology for Schools. By Reynell Coates, M.D., Corresponding Member of the National Institution, Washington City, and the New York Lyceum of Natural History, Member of the Academy of Natural Sciences of Philadelphia, &c., &c. Second edition and the coates of the Academy of Natural Sciences of Philadelphia, &c., &c. tion revised. 12mo. pp. 333. Philadelphia, 1842.

³ Practical Geology and Mineralogy; with Instructions for the qualitative analyses of Minerals. By Joshua Trimmer, F.R.S. 8vo. pp. 528.

quainted. Perhaps there is no one, which is more magnificent than Geology.

It assuredly is second to none, unless we except Astronomy.

The work before us is excellently well adapted for the student of Geology and Mineralogy. It has not the redundancy of larger works, and yet it is sufficiently ample as an introduction to the whole subject, and is well worthy of the attention of those whose minds have recently been attuned more especially to the subject, by the able lectures that have been delivered in some of our principal cities. It is illustrated by numerous wood cuts.

Vegetable Physiology.1

The number of physiological works to which we have had, from time to time, to attract the attention of our readers, sufficiently exhibits the growing taste for this species of philosophical inquiry. There was wanted, however, in our book stores, an elementary work on vegetable physiology. This want is well supplied by the work before us. It is written expressly for non-professional readers, and is consequently adapted for all—the language being clear, the style good, and the illustrations—which are numerous—entirely appropriate.

We can recommend its perusal strongly to our readers, and are of opinion, that it might be adopted, with much propriety, into our public and other

schools.

Carpenter's Human Physiology.2

This work exhibits all the mental characteristics of Dr. Carpenter—great knowledge of what has been done by others; clearness of conception, and lucidness of arrangement. Although entitled "Human Physiology," many of its details are on Histology and Histogeny, or on the minute anatomy, and development of tissues, which man possesses along with the rest of the animated creation. They, however, who are fond of such investigations—and who is there that is not more or less so—will find the transcendental as well as the more sober views of modern inquirers, well depicted, and we are consequently pleased to see it advertised amongst the forthcoming publications of the enterprising house of Lea & Blanchard of this city.

It may not be improper in us to remark, that Dr. Carpenter, in his preface, alludes to several works, the results of a large proportion of which he states have not been included in any previous publication on Human Physiology. Several of these had, however, been incorporated into the last edition of our own "Human Physiology," which has been before the profession ten months. This had not, however, reached Dr. Carpenter, as, whenever he alludes to

the work, it is to the third edition, of 1838.

'A Popular Treatise on Vegetable Physiology, published under the auspices of the Society for the Promotion of Popular Instruction, with numerous cuts. 12mo. pp. 302. Philadelphia, 1842.

² Principles of Human Physiology; with their chief applications to Pathology, Hygiene, and Forensic Medicine, especially designed for the use of Students. By William B. Carpenter, M.D., Lecturer on Physiology to the Bristol Medical School, &c. 8vo. pp. 680. London, 1842.

MISCELLANEOUS NOTICES.

Medical College of Ohio, and Willoughby Medical School—Dr. Kirtland.—Dr. Kirtland, Professor of the Theory and Practice of Physic in the Medical College of Ohio, has resigned the office, and accepted the chair on the same branches in the Willoughby Medical School.

We observe that the Trustees of the former school have given notice in the public prints, that no appointment will be made prior to the 15th of June, and that application should be made to D. K. Este, Esq., President of the Board, by those who are candidates for the situation.

New York Insane Hospital at Utica—Dr. Woodward.—This gentleman, of whom we have so often made honourable mention—has been elected Superintendant and Physician to this great Asylum for the Insane Poor. When will it be permitted us to congratulate this community, and the cause of science and philanthropy in general, on the completion of a similar undertaking in Pennsylvania!

Credulity of the People in regard to Remedies.—It is not surprising, that the most ridiculous views in regard to medical theories and practice should prevail amongst the people, and that they should be ready to run after the practisers of any novel system, no matter how preposterous it may be, when we observe the amount of superstition and credulity that exists to a greater degree of course amongst the ignorant, but to a certain extent likewise amongst those that are better informed. Hence the hydropathist and homœopathist, the uroscopist and the Thomsonian find dupes enough for their mercenary purposes.

It would scarcely be credited were it not notoriously the fact, that the fortune teller is constantly consulted; and that there are many who believe that a person in a state of magnetic sleep can inspect the very entrails and pronounce as to their healthy or diseased condition!

Within the last few days, and in and near this enlightened city of Philadelphia, two cases have occurred, which do not speak strongly for the "march of mind" in these respects. The child of a respectable individual was recently bitten by a dog, which was supposed to be rabid. The father very properly invoked medical aid from the city, but in the mean time it was advised that a person, who had been very successful in the prevention of hydrophobia under similar circumstances, should be permitted to prescribe, which was agreed to. Accordingly, he directed an infusion of a common and innoxious vegetable; and farther, that a paper, on which was written the following jargon, should be swallowed three times a day:

| Packs | | Mocks | | Packs |
|-------|---|-------|---|--------|
| Packs | | × | | Mocks |
| Erin | × | 0 | × | Bocks. |

The second case was one of porrigo on the leg, for which we were consulted by a respectable young Irish woman; the tar ointment was prescribed, under which the eruption improved. She was persuaded, however, that it could be permanently cured by one person only, who had gained

great reputation by removing cutaneous diseases by simply spitting upon them. Our patient subjected herself to one single operation: and the whole benefit was ascribed thereto!

Can we be surprised at any exhibition of credulity, when we know positively of the existence of such humiliating examples!

Cooper's Surgical Dictionary.—Dr. David M. Reese, Professor of the Theory and Practice of Physic in the Castleton Medical College, Vermont, is engaged in preparing for the press a new edition of Cooper's Surgical Dictionary. He proposes to add a supplementary appendix, in which he will record the improvements and operations of American surgeons since 1830—the date of the former American edition—together with a summary of all the new matter which Mr. Cooper has introduced concerning transatlantic surgery during the same period.

Pennsylvania Hospital—Dr. Pepper.—The Board of Managers of the Pennsylvania Hospital have elected Dr. Pepper to the office of Physician to this institution, in the place of Dr. B. Coates, resigned. Dr. Pepper is a zealous and practised pathologist; full of enthusiasm in the profession of his choice; who has had ample opportunities both at home and abroad for developing his natural endowments, and for becoming a well informed and able physician.

College of Pharmacy—Dr. Bridges.—The office of Professor of Chemistry having been vacated by the resignation of Dr. William Fisher, we are gratified to find, that it has been bestowed upon Dr. R. Bridges, of this city, well known as an excellent chemist.

University of Maryland—Dr. Roby.—Dr. Joseph Roby has received the appointment of Professor of Anatomy in the University of Maryland.—Boston Med. and Surg. Journal, May 11, 1842.

New York Society for the Relief of the Widows and Orphans of Medical Men.—We are pleased to see a movement in this praiseworthy direction made in New York by some of the most respectable members of the profession; and although, from the programme submitted to the meeting, the contemplated relief is intended to be but small, it is the commencement of a noble scheme, and may be more fully matured hereafter. We shall look with much interest to the further developments, which, we trust, may be entirely successful.

Ileus, in consequence of Hypertrophy of the Pancreas, producing Stricture of the Duodenum.—A country gentleman, of strong appearance, had felt for six or eight months, a sense of weight in the region of the stomach and navel, which prevented him moving at all after eating, as this gave rise to great uneasiness; he was in the habit of drinking great quantities of water, and experienced much relief from eructation. Four days previous to N. (narrator of the case,) seeing him, which was on the 20th July, he had indulged rather freely at an entertainment in the neighbourhood, and after having driven home somewhat late at night, he took a vomit, with effect; but instead of being relieved, he became gradually worse, and soon presented

¹ Hannover. Annalen, Bd. v. 2 Heft. and Lond. and Edinb. Monthly Journal of Med. Science, April, 1842, p. 390.

all the symptoms of ileus, without any of those of inflammation. Despite

of the usual remedies, he died 22d July.

Autopsy.—There was no trace of inflammation, nor of effusion into abdomen. The pancreas, however, had lost its natural appearance, and exhibited a soft succulent fleshy aspect, without any scirrhous or tuberculous deposition; it was enormously hypertrophied, being almost as large as the head of a fætus of four months old, and had so completely inclosed almost three inches of the duodenum, that this had become so narrowed as hardly to admit a goose quill. Between this stricture and the pylorus, the duodenum was expanded into a sort of second stomach, where, no doubt, the contents of the stomach remained, until so diluted as to pass the stricture; hence the patient's insatiable drinking propensity.

Case of Complete Obliteration of the Aorta. By Dr. Roemer, Professor of Anatomy at Vienna.\(^1\)—An officer, high in rank in the Austrian army, who had served during the war from 1770 to 1815, and had always enjoyed good health till his 45th year, went at that time to reside at Mayence. He then suffered frequently from dyspnæa and gastralgia, but did not apply for medical advice until he had had several attacks of threatened suffocation, and his stomach had refused to receive every kind of food. During a year he was treated homæopathically, without benefit. Severe palpitations then came on, accompanied by ædema of the extremities. The continued use of bismuth and digitalis made the dyspnæa and vomiting almost entirely disappear, but the pulse continued rapid, vibrating, and full. As his decease approached, he was seized with hoarseness and a small dry cough; and at

last he expired suddenly in his fiftieth year, while playing at whist.

Post-mortem examination.—The contents of the cranium were healthy, with the exception of a softened and exsanguine state of the brain, and ossification of the basilar artery. Four ounces of serum were found at the base of the skull. The heart was considerably hypertrophied; the valves The aorta, as far as the origin of the arteria innominata, was much dilated, which latter was almost twice its normal size. The subclavians and the left carotid artery did not appear unnaturally large. coronary arteries were ossified to the extent of about three inches. the origin of the arteria innominata, to the point where the ductus arteriosus enters, the aorta became gradually smaller, and at this latter spot the diameter did not exceed half an inch; it was there found obliterated to the same extent; its thoracic and abdominal portion was hardly as large as that of a child ten or twelve years old; the walls of these vessels were evidently thickened. The intercostal arteries, which arose below the obliteration, had nearly the diameter of a quarter of an inch, and communicated freely between the third and fourth ribs, with the mammary and thoracic arteries. It was by means of these anastomoses that the collateral circulation was established; the pulmonary arteries were greatly dilated; the left laryngeal recurrent nerve was greatly stretched, and the turn which it makes round the aorta corresponded to the obliterated point of that vessel. Biliary calculi were found in the gall-bladder. The lungs and other organs were healthy.

A case of Poisoning with Laudanum. By Casper Morris, M.D., of Philadelphia.2—Mrs. A. intending to administer a dose of oil to her infant, four months old, to prevent griping, attempted to add to it two drops of laudanum. It escaped more rapidly than she wished from the vial, but supposing from the appearance, there might be about three drops, she gave it

² Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. February, March and April, 1842.

¹ Arch. Gén. de Médecine, Dec. 1841, and Lond. and Edinb. Monthly Journal of Med. Science, April, 1842, p. 391.

at a venture. The child soon fell asleep, and though it appeared nervous and twitched frequently, she felt no uneasiness till it was seized with convulsions, about three hours after the dose had been taken. I was then sent for, and found it with general convulsions, stertorous breathing, hot skin, pupils contracted to mere points—the stupor was so deep that it could not be aroused by any efforts I could make. I at once administered a dose of sulphate of zinc, which I had carried with me, and enema of strong salt and water hourly, a part of which was retained without exciting the least sensation. On examining the laudanum bottle, I found there were about twenty drops remaining at the bottom of an ounce vial, the sides of which were coated with a deposit of opium; the little fluid at the bottom being very turbed, and containing many fragments of opium of considerable size. I at once come to the conclusion that we had no means of estimating the amount of opium taken. In the first place, the uncertainty as to the number of drops, was very great; any one who has dropped laudanum into castor oil, may have observed how very deceptive is the appearance it presents. In addition to this cause of uncertainty, the turbed fluid was of much greater strength than the clear filtered tincture; but above all, the probability that a portion of solid opium had escaped with the fluid was so great as to amount almost to certainty. Under these circumstances, the stomach being little likely to respond to the impression of remedies, I introduced a large catheter into it, and injected a quantity of warm water. This was promptly returned through the tube, (and I may remark in passing, that I have before witnessed the same result,) so freely and promptly, that there was no occasion for any effort to draw it off by the syringe. The water was returned perfectly pure; there was, however, no mitigation of the symptoms. In the meanwhile mustard cataplasms had been applied to the extremities, and iced water repeatedly dashed upon the head, but neither was sufficient to arouse the child. On the contrary, the respiration became more slow—the skin cold, and the consciousness diminished. I had the child placed in a warm mustard bath, which excited one cry, the first and only token of sensation manifested for many hours. Dr. Hodge, who had been summoned to my aid, arrived at this juncture. The coldness of the surface and tokens of prostration becoming urgent, we agreed to administer brandy and water. In the effort to swallow the first tea-spoonful, convulsions set in, whether caused or not by some drops insinuating themselves into the larynx, it would be difficult to say.—Convulsion after convulsion ensued, destroying the power of deglutition entirely. Fearing, lest in the passage of the tube into the stomach for the purpose of stimulating the child by a continued use of the brandy, the spasm might be aggravated, we threw a table-spoonful of brandy mixed with a cupful of warm water into the rectum. The surface still continued cold; there was not even heat of the head; the breathing was much interrupted—the face livid. A warm mustard bath was again resorted to, but without any effect; the child was indeed taken from it, as we thought, moribund. The spasm increasing in violence, the action of the heart alone indicated the retention of life. While Dr. Hodge was employing friction to the body, I thrust my finger into the mouth, and found the jaw rigid and the tongue thrust forcibly backward and upward against the palate. It occurred to me at the moment that even if an effort at respiration should be made, all access of air to the lungs was effectually prevented by this condition of the mouth; placing, therefore, two fingers upon the tongue and the thumb between the jaws, I held it forciby open, at the same time requesting Dr. Hodge to compress forcibly the chest and belly so as to empty the lungs: this was repeated frequently, the elasticity of the cartilages, and the descent of the diaphragm causing air to be drawn into the lungs: into the lungs. This was repeated for at least three minutes, action of the heart only giving indication of the presence of vital power. At length a long sigh was drawn and natural respiration re-established. Still the surface remained cold, and there was no manifestation of a diminution of the influence of the opium, although between six and seven hours had elapsed

since its administration. A large sinapism was applied to the anterior part of the body, which speedily induced redness, but without exciting the sensibility of the patient. It was then removed to the back without any more favourable result. Cold air was blown upon the face repeatedly with equal The mustard failing to excite permanent warmth, at the want of success. suggestion of Dr. Hodge, linen cloths were heated at the fire and applied so hot, that it was with difficulty they could be retained in the hands; by this means an artificial heat was communicated to the skin and the congestion of the great vessels relieved, the body soon becoming red as though covered with a vivid eruption. Before this was finally effected, convulsions again occurred, producing the same suspension of the respiration, and coldness and lividity of the surface, and this time there was no perceptible action of the heart. We all thought the child dead. The same process was again resorted to for the purpose of inflating the lungs, with the addition of blowing into the throat whilst held open. So satisfied was I that the case was past recovery that I should have abandoned it as hopeless, but the active and untiring zeal of Dr. Hodge was not so easily subdued, and we persevered again, and were both astonished and delighted to witness the re-establishment of natural respiration. For several hours we persevered in the application of the hot linen cloths—certainly the most effectual way of imparting heat to the body—and at ten o'clock at night, just eleven hours after the dose had been given, we left the child crying heartily for drink, and by the next morning it had entirely recovered from all the consequences of the dose.

Dr. Condie suggested whether the case related by Dr. Morris, was not one in which the establishment of artificial respiration, as practised by Mr. Charles S. Smith, in an instance recorded in the twentieth volume of the London Medico-Chirurgical Transactions, would have contributed to a more prompt restoration of the vital functions, or at least have been an additional means of securing the final recovery of the patient. Dr. C. believed that in very many cases of poisoning by opium and other narcotics, the employment of artificial respiration would most effectually contribute to the success of the other means resorted to, if not in itself sufficient to prevent a fatal result. He should not, himself, hesitate, where the artificial inflation of the lungs could not otherwise be effected, to make an opening into the trachea for the introduction of a tube.

Dr. Parrish remarked that the present case was a peculiarly interesting one, in consequence of the complete restoration of the powers of life, after the entire cessation of the action of the heart and lungs. The length of time during which the vital functions may be suspended, with the possibility of their subsequent restoration, has been the subject of considerable discussion. In the case just related, the cessation of the entire functions of respiration and circulation continued, as it appears, but for a few minutes, and Dr. P. believed, that there was no well authenticated instance of resuscitation in cases of asphyxia from submersion, where the suspension of respiration has continued longer than three or four minutes.—Instances have been related, it is true, in which resuscitation is said to have taken place after a body has been fifteen to twenty minutes under water, but it is evident, that, in these instances, there is a positive mis-statement as to the time the hody has remained in the water. It may be very confidently asserted, that after the lungs have ceased acting for five minutes, every effort to again rouse them into action will be in vain. This is the opinion of Dr. Edwards, whose recent experiments and observations constitute the highest authority on this subject.

Dr. Pepper observed that a careless observer might too readily be lead into error, as to the period during which the lungs and heart have ceased to act, in cases of poisoning with opium, in consequence of the extreme slowness and feebleness with which their functions are often performed for some time before they cease entirely.

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ART. I.—NEW MODE OF TREATING HYDROCELE.

By J. Pancoast, Prof. of Anatomy, Jefferson Medical College, Philada.

My dear Doctor,-I send, at your request, the following notice of a new

mode for the cure of hydrocele in children:-

Hydrocele in children, even where the opening has been closed, that led from the tunica vaginalis to the cavity of the abdomen, is a disease of frequent occurrence. In early infancy strong discutient lotions will usually suffice for its cure. But after the second year, some more efficient means are required to produce this result. Mere evacuation of the serum with a common lancet or trochar, or a number of punctures made into the sac with a large needle, so that the fluid may escape into the cellular tissue of the scrotum, and be subsequently removed by the absorbents, are the modes of cure commonly relied on. But I have found them so uncertain in their result, success in many cases being attained only by a repetition of the process, that I have latterly adopted the following plan of treatment, which in three cases that I have tried it in has proved

perfectly successful.

I puncture the swelling, in front and below its middle, with a common thumb lancet. When the serum is discharged a little pressure causes the serous or vaginal tunic to protrude in the form of a small cyst. This I lay hold of with a pair of forceps, and draw it out, as far as it will admit. I then divide the lower half of the cyst next the skin with a pair of scissors, and traction again being made upon the pedicle, still more of the tunic may be drawn out from the upper portion of the scrotum, which is nipped partly off and treated in like manner as before. I repeat this process, while any portion of the vaginal tunic can be made to readily protrude at the opening, so as to be laid hold of with the forceps. I then surround the side of the scrotum and the testicle involved with strips of adhesive plaster, after the manner of Fricke of Hamburg for the cure of hernia humoralis. By this means, the cellular tissue of the scrotum (the tunica vaginalis reflexa having been removed, to a considerable extent, with the forceps and scissors) is brought directly into contact with, and ultimately becomes adherent to that portion of the vaginal tunic which is closely attached to the fibrous coat of the testicle.

The child is allowed to run about as usual, and in a few days is perfectly well. Excepting as regards the puncture of the skin, the operation is entirely devoid

This plan of cure will, I think, be generally found applicable in children. It is certainly more speedy and certain in its results than any measure short of injection of the sac, which is not usually practised in children.

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It would also, I think, be found successful in the recent hydrocele of adults, before the tunica vaginalis reflexa has become so coriaceous, or been so thickened by disease, as to prevent its being drawn out in the form of a cyst through a narrow opening. In one instance, where the puncture or palliative process had been several times tried without success, and in which I feared I might find a thickened membrane, I made the puncture through the skin with a curved bistoury, and pushing it on to the top of the sac, divided with the point of the instrument as I withdrew it the anterior wall of the tunic, laying open the subcutaneous cellular tissue of the scrotum, but not cutting the skin. Subsequently, no difficulty was encountered in drawing out the tunic and removing it with the scissors.

Very sincerely, yours, &c.

April 20, 1842. J. Pancoast.

Since writing the above, I have operated upon another case in the same manner, in which the passage leading to the cavity of the abdomen had remained open. The cure in this instance has been slow and gradual, occupying about a month, and without the aid of a truss. The fluid re-accumulated in the tumor during the first week, but it was gradually absorbed, adhesion beginning below and proceeding upwards, till a radical cure was established.

J. P.

June 8, 1842.

ART. II.—CASE OF DROPSY DEPENDENT UPON DISEASE OF THE HEART.

Reported by E. J. Bee, M. D., and John Staige Davis, M. D.

Resident Physicians to the Philadelphia Hospital.

[The following case is an example of a large class, in which dropsy is dependent upon disease of the heart, and in which during life the physical signs indicate the main pathological lesions.—Ep.]

Thomas M'Grath, aged 44, a labourer.—The patient says that he has enjoyed good health until about thirteen years since, when he had an attack of articular rheumatism while working in Washington, D. C. Whilst labouring under this attack, he was seized with dyspnæa and acute pain in the region of the heart. The latter, as well as the rheumatic pains, gradually yielded to appropriate treatment, but slight dyspnæa continued. Four or five years subsequently, he had another attack of rheumatism, affecting his knees and shoul-

ders, from which he recovered.

In October 1841, he entered the hospital, in consequence of the pains recurring in his knees and thighs. He remained in the ward four weeks, and was discharged much relieved. He re-entered the house on the 10th of December following. He states that several weeks previously, while at work, and apparently well, he was seized with vertigo, which continued for three weeks. At the end of this time, the dyspnæa, to which he had been more or less subject since his first attack of rheumatism, increased. At the period of his entrance, he presented the following symptoms—dyspnæa and palpitation, aggravated by ascending stairs or by any violent muscular exertion; decubitus on the right side and elevated; some dilatation of the nostrils; cough, with a reddish glairy expectoration, somewhat resembling pneumonic sputa. The face and lips are of a bluish tint; the respiration is 36 in the minute, and laboured. Appetite indifferent, bowels regular; pulse 104, corded, and moderately resisting. left side is slightly dilated over the præcordial region; the veins of the neck are There is imperfect pulsation of the carotids, and general fulness of the capillaries. On the left side anteriorly, percussion is clear, except in the præcordial region, where it is flat; on the right side, it is clear in the upper half, but dull below. Respiration on the left side is vesicular; on the right side, also, vesicular in the upper half of the lung, inferiorly bronchial, with crepitant rhonchus. The impulse of the heart is exaggerated; both sounds are diminished, the first, however, being less distinct than the second; at the apex there is a

rasping sound, synchronous with the systole of the heart. Posteriorly, percussion is clear on the left side throughout; on the right side, dull in the inferior one-third; elsewhere it is resonant. The treatment consisted in venesection (3xij); and in small doses of calomel and ipecac. (gr.ss of the former, and gr. two-thirds of the latter every hour, till the system was affected.) He was discharged January 28th, cured, and again entered the wards on May 4th, presenting the following symptoms: some anxiety, but no marked discoloration of the countenance; respiration, abdomino-costal, regular, 30 while sitting; the pulse large and firm, requiring strong pressure to obliterate it; 90 in the sitting posture. The legs are much infiltrated with serum as high as the knees; slight ædema of the thighs and abdominal parietes. There is slight pulsation perceptible in the veins of the neck, which are empty during inspiration and filled in expiration. The chest is more expansible on the right side anteriorly than on the left; the latter is also less developed, except in the præcordial region. The left clavicle is unduly prominent, owing to an old fracture.

Percussion.—The right side is obscurely resonant in its upper third, and almost flat below, the liver extending as high as the fourth rib; the left side is preternaturally resonant, except in the præcordia. Respiration on the right side bronchial beneath the clavicle, the inspiration being feeble, the expiration strong and blowing; elsewhere it is rude, and a subcrepitant rhonchus is occasionally heard. The resonance of the voice is slightly increased; on the left side, the respiration is strongly bronchial beneath the clavicle; and is heard feebly

middle of the sternum to within half an inch of the left nipple.

over the greater part of the præcordial space; elsewhere it is rude.

Heart.—There is dulness on percussion beneath the right clavicle from within an inch of its left extremity, laterally to the left four inches; and on the line of the nipple there is dulness, from the junction of the fourth right rib with its cartilage to the left, in an extent of ten inches. The impulse of the heart is forcible at a point two inches below, and one to the left of the left nipple, where both sounds are heard. The first is long, protracted, and dull; the second is short and unaccompanied by any murmur; both sounds are heard between the third and fourth ribs along the middle of the sternum, the second being very clear and bell-like. Perfect flatness extends (by percussion) from the upper margin of the fourth rib, downwards, the length of the sternum, and from the

Posteriorly.—The left side is more developed than the right; percussion is obscure on the right side, more resonant on the left. Respiration at the summit of the right lung is bronchial, with crepitant rhonchus during inspiration; elsewhere it is rude. On the left side respiration is rudely vesicular at the summit of the lungs; tubal at its roots, and strongly vesicular below. The liver extends, as before remarked, from the fourth to the last false ribs. The tongue is moist; there is no pain in the lumbar region; the urine is passed without pain or difficulty, is copious, of a pale straw colour, yielding an abundant precipitate when heat is applied, or on the addition of nitric acid; this precipitate is of a reddish brown colour, and, after standing a few hours, separates into a pearl white matter, which subsides, and into a pink coloured flocculent portion, which remains suspended.

His treatment consisted in the administration of tincture of digitalis, ten drops three times a day; of purges of acetate of potassa, or of jalap and cream of tartar alternately, every other day: the infusion of chimaphila was directed as his drink: he took calomel, squills, and digitalis until the constitutional effect of the mercury was produced; and occasionally, as circumstances required, venesection, topical depletion (to the præcordia) and counter-irritants were

resorted to. He was discharged in July.

The remainder of the report is by Dr. Davis.

About the middle of November he returned for the last time; he had remained in the house since his discharge, and, for three or four weeks previous to his entrance into the wards, had been compelled to work at the pumps: the violent exertion induced the return in an aggravated form of his heart affection. At the time of his admission, he laboured under great dyspnœa and palpitation on the slightest movement; the action of his heart was very violent and heaving,

the first sound was prolonged, and a bellows-murmur accompanied the second sound. He was relieved by free and repeated local depletion, and by the internal administration of small doses of tartar emetic frequently repeated; he also took the tincture of digitalis in the dose of ten drops three times a day: subsequently (towards the close of the month) a blister was applied to the præcordia; and counter-irritation kept up by tartar emetic ointment; by these means, the action of his heart was much modified, and his condition rendered one of comparative comfort. Early in December, his feet and ankles became ædematous, but the ædema was dissipated by the application of a bandage. In the latter part of the same month, he had an attack of bronchitis, which was regarded, however, as a symptom of the hydropic condition, from which he suffered more or less till within a few weeks of his death. To relieve it he took from time to time various expectorants with some benefit. From this time (toward the close of December), the first sound of the heart was generally absent, occasionally returning for a time, but even then being barely perceptible; the bellows-murmur in the second sound continued.

From the middle of February we may date the commencement of his final decline, and the occurrence of marked symptoms of obstructed circulation; the ædema of his inferior extremities reappeared, and, notwithstanding the employment of active hydragogue cathartics, (consisting principally of jalap and bitartrate of potassa), slowly but steadily increased: toward the close of the month, fluctuation was perceived for the first time in the abdomen. Recourse was then had to diuretics; he took small doses of calomel and squill, till slight ptyalism was produced, and drank freely a solution of bitartrate of potassa in juniper tea: these, although they augmented considerably the secretion of urine, did not retard the progressive accumulation of fluid, both in the cellular tissue and peritoneal cavity. During the months of March and April, these symptoms gradually increased; his respiration becoming more and more impeded, and his decubitus more elevated; the difficulty of respiration amounted to orthopnæa in the forenoon. His urine, which had been slightly albuminous since his entrance into the ward, became highly so during the last month of his life. before his death his inferior extremities were enormously distended, and erysipelas commenced on the inner surface of his thighs.

He died on the 19th of April.

Necroscopy 38 hours after death. Thorax—Considerable effusion into the pericardium. Heart much enlarged, its length being six inches, and its circumference at its base twelve inches. Left ventricle hypertrophied and dilated; thickness of parietes at middle fourteen lines, length of cavity four inches. Mitral valve—Portions of its investing membrane are opaque, but the valve is flexible and entirely able to perform its functions. Semilunar valves of the aorta:—ossific deposit on the internal coats of the aorta immediately above and below the valves; cartilaginous thickening of the adherent margin of the latter. In one of the sinuses of Valsalva, on the internal surface of the artery, is a circular concave ossific plate, five lines in diameter, the concavity presenting internally. On one of the valves, there are numerous ossific spicula, particularly along its line of attachment; these, though they impair its flexibility, do not prevent its closing. The aorta in its ascending portion presents a patchy redness of its lining membrane, beneath which are numerous points of steatomatous deposit. The left auricle is much dilated. Right ventricle:-length of cavity three and a half inches; thickness of parietes at middle four lines; tricuspid valves healthy. Right auricle enormously dilated, of suf-

ficient capacity to contain an orange. Pulmonary valves healthy.

Abdomen.—Immense effusion into the cavity of the peritoneum of a dark red colour. Liver enlarged: right lobe much softened; when shaken undulates like jelly; in feel and texture resembles the spleen: left lobe similarly affected, but in a less degree. Kidneys softened, with granular deposition in their cortical portion. On the external surface of the right ventricle there is an opacity of its

investing membrane in an extent of about two square inches.

Lungs.—Right lung united to the parietes of the chest by extensive and close adhesions; texture of the lung healthy. Left lung also adherent to the pleura costalis; emphysematous in its upper middle lobe, elsewhere normal.

ART. III.—ON THE ORIGIN AND DEVELOPMENT OF THE DISEASED CONDITION OF THE INTESTINAL GLANDS, WHICH OCCURS DURING THE COURSE OF CERTAIN FORMS OF CONTINUED FEVER.

By John Goodsir, Esq., Member of the Med.-Chir. Soc. of Edinb. &c.

(Read before the Med.-Chir. Soc., February 1842.*)

Without entering upon the question, as to whether the subject of the present paper constitutes a distinct species of disease, or be merely a form of the ordinary continued fever,—a question which I am quite satisfied will never be answered, so long as each pathologist confines the inquiry to the fever of his own district, without connecting with it the consideration of those forms of fever which occur in every separate district of a country or continent,—I shall proceed at once to describe a lesion which I observed some time ago in a disease which I was led to consider as typhous or continued fever.

On opening the abdomen of individuals who had died of this fever, we could always recognise the diseased condition of the internal surface of the gut, by the elongated bluish purple spots on its peritoneal surface, corresponding to the glands of Peyer on the internal surface; and this we could do, even in those cases in which, from other circumstances, the vascularity of the parts had dis-

appeared after death.

On laying the gut open, the patches of Peyer's glands exhibited, according to the standing of the case, the various appearances which I shall now describe.

But before proceeding to detail the phases through which the patches pass, from the first appearance of the disease till the establishment of the typhous ulcer, or of perforation, I may remark, in regard to the condition of the mucous membrane in the neighbourhood of the patches, that it did not in every case exhibit unequivocal traces of inflammatory action. It might be highly congested, or it might be perfectly bloodless in cases of well developed disease of these patches. I cannot say that I have often observed the mucous membrane pulpy or softened. The villi and follicles of Leiberkuhn have always appeared to me to be healthy. The vascularity, when it did occur, was met with principally in the neighbourhood of the glandular patches, and resembled in all respects that described and figured by Dr. Bright in his report on the form of fever lesion now before us.

The commencement of the disease is first announced by the smaller patches becoming slightly elevated, so as to be hemispherical or conical, and by the more extended groups assuming a table-like appearance, with perpendicular edges, as if a flat plate had been placed on the mucous surface. The colour varies according to the case, from bright carmine red, to dark purple or black, continuous, or in patches. In the more vascular specimens, the colour is a yellowish gray, contrasting with the dead white or grayish white of the intestinal surface. More closely examined, the surfaces of the patches exhibit, as usual, the follicles of Lieberkuhn and villi, differing in no respect from those on a healthy surface, and arranged around the vesicles of the patch in the usual manner. An examination of this kind must be made under water, and when conducted in this manner, the vesicles of the patch may be seen, by floating aside the membranous border and circle of villi which surround each of them. The vesicles themselves may thus be seen to be much distended with a yel-

^{*}London and Edinburgh Monthly Journal of Medical Sciences, April 1842, p. 353.

lowish matter—a distention which is now perceived to be the immediate cause

of the elevation of the patch.

In the second stage of the disease, the patches still continue to rise above the surrounding surface, and to exhibit the changes formerly described, in a more characteristic manner. As the elevation increases, a change begins to take place on the elevated surface. This change may be partial, that is to say, it may take place sooner on some parts of the patch than on others, but generally it extends over the whole surface, and is bounded by a line situated from a tenth to a sixteenth of an inch from the edge of the patch. The change itself consists in the surface beginning to alter in colour, becoming dirty yellow or gray, and assuming a peculiar undulating or contorted surface, like a bit of leather seared with a hot iron. The villi have now in a great measure disappeared, but the orifices, or rather the circular folds, or pits, in which are situated the vesicles, are still visible. At last, the confines of the changed portion of the patch are rendered evident by a groove apparently produced by ulceration, which, appearing here and there on these confines, at last extends all round, and indicates some change about to take place in the whole arrangement of the parts.

In the third stage, the groove just described makes its way into the tissues; and as it does so, the healthy but elevated mucous membrane on its external edge, gradually everts itself, as if by the upward pressure of the matter beneath it. While this is going on, the edges and surface of the altered portion become more rugged, and their former character somewhat obscured. The altered portion which now assumes very much the appearance of a slough tinged with intestinal matters, becomes more and more detached from the surface to which it adheres. When the mass is gently raised under water, it may be observed that its attached surface sends processes down into the cellular membrane beneath; and if these processes be carefully drawn out, they will be found to correspond each with one of the original vesicles of the patch. When detached in this manner, they leave on the surface to which they adhered, dimples, or rather pits, which may be recognised as being the cellulo-vascular sheaths of

the patch vesicles.

Occasionally the free surface of the altered portion comes away first, in the form of flocculent laminæ, and the deep processes continue to be attached for some time in the cellulo-vascular capsules, like little nodules or pellets of a

rounded or pyriform shape.

The altered portion, even immediately before detachment, may still present on its surface traces of its original structure. The orifices of the follicles in which the vesicles are situated are visible here and there on the surface, and

the membrane retains sufficient consistence to bind the mass together.

Fourth stage. When the sloughy mass has separated, the surface of what may now be called an ulcer appears flocculent; but, when examined under water with a couple of needles, a number of foveæ, the remains of the cellulovascular capsules, may be observed on it. In some of these, the little pellets of deposit may still remain attached, appearing like mustard-seeds scattered over the surface. The edges of these ulcers are thick and everted, and exhibit the natural structure of the nucous membrane. In some ulcers the eversion of the edges proceeds so far as to throw the mucous surface of the edge completely over, so as to apply it to the surrounding nucous membrane.

Fifth stage. The ulcer may now heal, or proceed to perforation of the gut. In the former case granulations, I presume, appear, and the reaction of these cellular elements carries on the contraction and cicatrization so well displayed in some of the preparations on the table. In the present form of ulcer, as in others affecting the mucous coat of the bowels, it is some time before villi again make their appearance on the cicatrized surface; but these changes I have not watched or observed. When the ulceration proceeds towards perforation, it is generally one spot of the patch which is more particularly affected, the rest of the ulcer retaining its former granulating or flocculent appearance. At this stage of the process lymph begins to be deposited on the external surface of

the gut; and if the patient survives the perforation eight or ten hours, the lymph rounds off the edges of the hole, and gives it that punched-out appearance so frequently observed. The omentum may adhere opposite the incipient perforation, and after contraction has concluded, it appears as if it had been forced from without into the hole, an appearance resulting from the contracting

agency of the granulations.

Having now described the changes which the patches undergo in this form of disease, I have to point out the peculiar matter upon the presence of which these changes appear to depend. The gray matter which fills the vesicles or the spaces which they occupy, I find to consist of that universal element of every primitive tissue, healthy or diseased, nucleated cells. These cells are from 2000 to 4000 of an inch in diameter. They do not in general exhibit a nucleus in the sense in which that term is generally applied; that is, the individual cells do not present in their interior smaller cells holding certain relation to them. These cavities appear to contain a number of granules, four, five, or six, as far as could be reckoned. Whether these in the aggregate are to be considered as a nucleus proceeding towards the formation of a number of young cells, or whether the appearance is to be considered as analagous to that irregular form of nucleus and cell-contents characteristic of certain forms of tubercle, I do not know. This matter, of whatever nature it may be, appears first in the vesicles of the patches, and then spreads out on all sides, after the manner of other purely cellular structures, till the whole patch, before it is thrown off, appears to be principally formed of it; the surface of the mass, however, as has been stated, and certain parts of its interior, consisting of the somewhat altered mucous and submucous tissue.

The morbid changes which the glandulæ aggregatæ of the ileum undergo during continued fever, appear, from the observations I have just detailed, to be of the following nature, viz. the development of cells within the constituent vesicles of the patches to such an extent as at last to burst them, or cause their solution—the continued increase in the number of the cells, proceeding from as many centres as there are vesicles in the patch—the conglomeration of the whole into one mass above the submucous and under the mucous membrane—the distention of the latter, and the necessary ulceration and sloughing of the

mass arising from this circumstance.

The whole mass, as detached from the gut, is not therefore to be considered as a slough; that portion only which consists of the upper halves of the vesicles and of the mucous membrane, being dead, the greater part consisting of the cellular mass, being merely detached from the submucous tissue, and consists of those nucleated cells, which, at first confined within their generative vesicles, had at last vegetated so much as to break their natural bounds, and to become one mass of cells, constantly increasing in numbers, except below, where the separate centres from which they originally proceeded are indicated by the processes and little pellets which are situated in the remains of the vesicle capsules.

It will have been observed that I have not employed the term "inflammation" in the course of the description I have just given. Whether the changes I have described originate in inflammatory action or not, of this I am certain, that the ulceration and pseudo-sloughing is an immediate effect of the distention from the submucous vegetating mass, and would occur whether the latter

were produced by inflammation or not.

In regard to the history of this department of the morbid anatomy of fever, I may state, that Dr. Bright has given very beautiful representations of the sloughs and ulcers in his Reports of Medical Cases. Louis and Chomel have referred to the appearance of the matter which distends the glands, and compared the process to the tuberculous. Schönlein, in his General Pathology, has made a general allusion to the deposit, and to the changes which occur in the patches. Gruby, in a work on the Microscopic Character of Morbid Pro-

¹ Schönlein, Allgemeine und specielle Pathologie and Therapie. Zweiten Thiele. 1839, p. 23.

ducts, was the first, as far as I can learn, who figured and described the cells of which the deposit consists. Finally, Rokitansky has generalized the subject, and considered the matter deposited as peculiar to typhous fever, and referable to the same category as cancer, tubercle, &c.

My own observations have been made without reference to any hypothesis

as to the pathology of fever.

ART. IV.—CASE OF SCIRRHOUS PYLORUS.

Reported by E. J. Bee, M. D., Resident Physician at the Philadelphia Almshouse in 1842.

[In the following interesting case, obscurity arose in the diagnosis owing to the existence of a bellows-sound in the epigastric region, which, at one time, suggested the idea of aneurism of the abdominal aorta. The disease was soon, however, diagnosticated to be scirrhus of the stomach, which, by pressing on the aorta, gave occasion to the sound in question.—Ep.]

William Burdett was admitted into the Men's Med. Ward No. 3, May 19th, 1841. He came from Nottinghamshire, England, and was landed at Philadelphia, May 17th, 1841. When I first saw him, he was vomiting, and complained of gnawing and shooting pain in the epigastric region. No abdominal tenderness. No cough, nor pain in the chest. No cephalalgia. Countenance not sallow, but highly florid. Breath very fetid. Never had had vomiting before he came on shipboard; and his appetite was good. Was attacked with vomiting immediately after setting sail, and vomited continually during the whole passage. Not conscious of having had any pain in the epigastric region before his attack at sea.

Weighed at the time he left England thirteen stone; is now very much emaciated, and supposes he would weigh about seventy-five pounds. sage over of about fifty-six days. By applying a stethoscope over the stomach, a well marked bruit de soufflet was heard, but no purring sound. Vomited his food imperfectly digested five or ten minutes after taking it. Diagnosis— Scirrhus. Treatment-Aqua calcis, and milk for diet. Bowels opened by common injection. May 20-Much the same, breath not so fetid. The lime water and milk checked his vomiting for a few hours only. Complains of disagreeable taste in his mouth.

> R. Tinct. Kreasot. f.zss. Aquæ f. Z iv. ft. collutor.

The mouth to be washed with it several times daily.

21st.—Stomach much distended with wind. Twenty leeches were directed to the epigastrium. R. Tinct. Menth. pip. f. 3j dropped on sugar. This gave him considerable relief.

22d.—Complained of pain shooting through the left side. A Burgundy plaster was applied over the left side, as a placebo, and the neutral mixture was directed.

23d.—Examined by Dr. Pennock. Diagnosis—Scirrhus of the stomach. Lime water and milk were continued. Injections of essence of beef were added, and also that he should use as much as he could by the mouth. All the food he swallowed was generally rejected. Small quantities of Tinct. opii were added to the injection. Wine whey was given him, but it was rejected.

Died on the 28th. Twelve hours before death said something had given

way in his stomach.

Autopsy, 18 hours after death by Dr. Pennock. Lungs normal. Heart and head not examined. Liver cirrhosed. Spleen nearly natural. Intestines not examined. Kidneys normal. Stomach almost a solid scirrhous mass from the cardiac to the pyloric orifice. Greater curvature not as thick by one half as the smaller. About one-third from the pyloric orifice along greater curvature there

1 Observationes Microscopicæ auctore Dav. Gruby, 1840, p. 44. ² Rokitansky. Handbuch der Pathologischen Anatomie, Band iii. p. 265. was an ulcerated opening, as large as a quarter of a dollar. The contents of the stomach which had been effused through this opening were found in the abdomen. Mensuration,—Length of the stomach, following the curvature, three inches. Thickness of coats at cardia, along greater curvature, quarter of an inch. Middle half an inch, and at pylorus three quarters of an inch. The stomach would contain about five ounces. When removed from the body, it collapsed very little, and retained perfectly the outline and form of one which was distended.

E. J. BEE, M. D.

ART. V.—HOPE'S MIXTURE AS A REMEDY IN DYSENTERY.

Sussex Co. Virginia. June 17, 1842.

Dr. Dunglison,—Below, I send you my experience in the treatment of typhoid dysentery, hoping it may prove of service to some of your numerous subscribers.

If you consider it worthy of the space it will occupy in your valuable Journal, you will oblige a subscriber by inserting it.

Yours, &c.,
Benjamin F. Eppes.

This disease commenced in Norfolk, Va., some time last summer, and was characterized by all the symptoms of typhoid dysentery, usually met with in the works on the subject; it had, however, other peculiar symptoms which I shall give below; considering them to be characteristic of this disease, as I have never met with them in any other. The most prominent of these was the unusual force with which the abdominal aorta pulsated; in one case, it was strong enough to remove cupping-glasses, placed on by the ordinary mode of suction, and I had to use, instead, tumblers exhausted with the flame. The skin was shrivelled and cold, with a clammy sweat extending over all parts of the body excepting the abdomen, which was very hot and dry.

Treatment. When I first saw the disease, I considered it easily managed by the remedies laid down by authors, but, alas! how soon my exalted opinion of the remedies for treatment was set at naught. I felt as a mariner would without his compass, although he had his chart. I had not yet tried the above remedy, and on referring to the first volume of the "Medical Examiner," I found it highly extolled by Prof. C. D. Meigs, whose opinion I was taught to reverence while at the University, of Va. But I will allow him to speak for himself. In speaking of a carpenter, (Miller by name), he says: "I had exhausted all of my means in his case, viz: venesection, calomel, and opium, emulsions of oil, anodyne enemata, &c.; and after many days of intense suffering he was still tormented with tormina and tenesmus, which called him up from thirty to forty times per diem. I procured the acid mixture; he took eight doses, and was well thenceforth. Since, I have used it with the most happy results in numerous cases of cholera, ordinary cholera morbus, diarrhœa, dysentery, and cholera infantum. I think it fully deserving of all the commendations bestowed on it by Mr. Hope, and I earnestly desire that the readers of your useful work may make a fair trial of it in the dysenteries which now prevail. My experirience entirely accords with that of Dr. Meigs. I used it in from forty to fifty cases, and had the satisfaction to lose only two cases. Demulcents should be used as a drink and diet. I append the formula of Mr. Hope, as it may be acceptable to some of your subscribers.

R. Acidi nitrici, f zj.
Mist. camphoræ, f zviij.
Misce et adde
Tr. opii. gtt.xl.

Dose. One-fourth part every three or four hours,

BIBLIOGRAPHICAL NOTICES.

Annual Report of the Massachusetts General Hospital.—Dr. Bell's Report of the M'Lean Asylum.¹

We draw attention to this report mainly with the view of noticing the sensible observations of Dr. Bell, the superintendent of the M'Lean Asylum, on the numerical estimates which have been published by different insane asylums, and which make the ratio of cases greater than it is found to be, when we examine the matter without any bias. On this subject we expressed our own opinions in a former number; and shall, therefore, cite those of Dr. Bell without farther comment.

"There are but few circumstances touching the history, causes, type or results of the cases of insane persons which are capable of being stated numerically. Of these few, it unfortunately is true, that their importance is almost too insignificant as matters of curiosity or of science, to render their communication of much more value than the fashion of their dress or the aspect of the planets. I presume that the ages of patients, their civil state as married, widowed or single, the colour of the hair and eyes, the complexion and the like, might be recorded and conveyed with a tolerable degree of exactness; but beyond this any thing of the ordinary tabular statistics requires so many explanations and qualifications on account of their complexity, uncertainty and changeableness, as to deprive them entirely of the character to which they seem to aspire.

"When it is practicable by any acuteness of sagacity to seize upon, and by any precision of language to express in signs and classify in columns the degree and character of the affective sentiments, the moral qualities and the intellectual capacity of an individual, then we may look for the characteristics

and results of insane hospitals in tables of scientific accuracy.

"It may be alleged that such tables, from the very nature of the subject, profess to be nothing more than mere approximations to exactitude. The question then is, whether it is not safer and better, to trust to general statements of facts on a subject of this kind, than to attempt to coerce loose approximations and conjectural estimates into the semblance of mathematical data. When an institution authorizes the general statement that cases of insanity of not many months' duration usually recover, it appears to me quite as valuable a fact in its relation to science or practice, as if a given percentage were announced from approximative data, and more so, for there are many circumstances which would probably render the last statement inexact; nay, it is impossible that it

can really have the accurate character to which it pretends.

"I have ventured the opinion that very few and trifling facts relating to insane hospitals are capable of numerical expression bonâ fide. Even the profession or vocation of patients cannot be specifically stated in a vast number of instances, without going into the whole personal history of the individual, which of course could not be expressed in a table. Many, perhaps most insane men, have constitutionally ill-balanced minds, and have been restless, vacillating and unsteady in their pursuits. Some have scarcely followed any business to a degree worthy to identify them with it as having any relations to disease, (and in this view only is the research worth making), while others have run through half the mechanical arts with about equal claims to each as their calling.

"As to the causes of disease and its duration before admission, I must give my testimony that receiving patients principally from the better educated and

¹ Annual Report of the Board of Trustees of the Massachusetts General Hospital for the year 1841, 8vo. p. 40, Boston, 1842.

most intelligent classes of society, and from the proximity of the residence of most of their friends to the Asylum being in such constant communication, as enables us to ascertain and verify antecedent facts to the highest practical extent, there is not one case in ten where a satisfactory or adequate single cause can be decided upon as certain, and I suspect that in a majority of cases, the first impressions of the probable causes of disease, as derived from friends, will

be changed on a more mature examination.

"The type or form of disease, whether mania, melancholy, dementia, moral insanity, or any other understood description of symptoms, might be given on any one day with considerable exactness. But how the same case running through several forms in the course of a few months, resting perhaps about as long in mania as in melancholia, and peradventure closing in dementia, can have an annual character applied to it, and be classified in tables, is difficult to be understood. Every one familiar with the insane knows that the character of the disease is constantly changing, many cases for years having no form so prevailing or usual as to justify its being ranked under one head rather than another.

"Even the annual return of deaths, (and the small ratio of mortality is a point on which our institutions have occasionally manifested considerable elation), a subject which one would suppose capable of accurate, unqualified expression if any where, will vary much, not only as affected by the care and skill of an institution or its healthiness of position and arrangements, but by the views which may be entertained of the expediency of permitting the sufferer to spend the last weeks or days of expiring life among kindred or without removal. The ratio then of mortality will express nothing beyond a mere contingent circumstance, and possess the slightest value as a fact in science.

"The number of patients eloped, also a subject of statistical returns, will depend upon the exertion and expense employed in regaining the fugitives, for the number of 'eloped' is based not on the frequency of escapes, but upon those not returned. Perhaps no other way is practicable, if any expression of so unimportant a fact is worth making at all, for the stages of elopement betwixt a mere losing sight of a patient for a moment, his absence for a week or his permanent release have no line of demarcation upon which any other more

constant standard can be founded.

"The returns much improved and improved are obviously mere expressions of opinion, without any settled standard by which a supposed amelioration can be measured, so as to convey any precise meaning except to the mind which judges and decides upon the given case; and the term recovered, apparently sufficiently plain and intelligible, is far from conveying an exact unqualified Indeed, it is far from an easy duty to make out a list of those who form the recovered. The degree of mental, moral, and affective soundness is widely In contrasting the results of one institution with another, or with a different period of the same, there is a radical uncertainty from the rules and rights of detention or dismission. In an hospital having a legal power of detaining the patient until in the director's judgment he is recovered, those who have passed over four-fifths of their progress towards restoration, will not, as in an asylum under different regimen, be removed by impatient or presumptuous friends to add to the number of 'much improved' only. In such a case, it is the opinion, or rather the will of friends, that determines the return of 'recovered' or ' much improved.'

"As a matter of comparison this branch of statistics is still more likely to lead into error. This was adequately shown in our last annual report of this Asylum; the records demonstrating that the returns of 'recovered,' were affected a hundred per cent. in favour of late, as compared with early years, by the establishment of a rule requiring at least a three-months' residence in case recovery were not sooner obtained. Any legal or conventional power of retaining patients until the event was fairly and fully decided, would effect still

another change in this respect.

"Again, if a case of insanity presumed to be of not more than six months' standing is called recent in one institution, and of twelve at another, the conse-

quence will be that at the first the ratio of cures of recent cases will be essentially, and of old cases immensely greater than at the latter under identical facts! So if those dismissed from an institution in a convalescent state are entered in the register of one institution as 'much improved,' while at another, if they are heard of as sound before the end of the year, they swell the list of

cured, it is manifest that the same facts make a widely opposite report.

"The two great points in relation to 'recovered' patients, on which an approximation to accuracy would be peculiarly desirable both for popular and professional information, are the degree of integrity to which the sufferer arrives in his intellectual powers, his moral sense and his affective sentiments, and the number of attacks to which he may have been previously subjected. We have never attempted to go fully into these our American institutions; we have not only not essayed to tabularize them, but have not often ventured general expressions of opinion. For aught which has been reported, the public is justified in supposing that in all cases 'recovered,' a state of original integrity is attained, while melancholy experience too strongly demonstrates that this is far from being uniformly the case; the temper, feelings and intellect of the sufferer, perhaps previously ill-balanced or ill-regulated, feel the influence of a decided attack of disease in augmented irregularity and eccentricity.

"The register too of any institution will not fail to present many instances of 'recovery,' which have 'recovered' before, and that perhaps repeatedly, cases often of periodical disease arriving at a certain stage of soundness perhaps complete, but not permanent. It is possible that a single case of this kind might constitute several recoveries in a single year! This would readily happen if the sufferer's residence were so near an institution that he could be removed when in his rational stage from its care, and be replaced when a paroxysm of excitement or depression supervened. Every Asylum has its proportion of these frequent comers. If entered anew each time of relapse, and discharged as 'recovered' in the ratio or per centage of recoveries, especially in an institution discharging not more than fifty or a hundred patients annually,

the effect would be ludicrously obvious.

"A single illustration in this matter of statistics will show how easy it is 'to keep the word of promise to the ear, but break it to the sense.' An eminent English naval officer in his book of travels in the United States, shows his estimate of the high character of our institutions for the insane, by referring to the statistics of one where the ratio of recoveries is given as $91\frac{7}{3}$ per cent. This statement was doubtless literally accurate. Every work on insanity since issued from the press abroad, comes to us repeating this fact without comment. Will it be credited that this ratio, apparently so precise and minute as to descend to fractional parts, was based on the event of twenty-three cases, discharged in one year, (recent cases too, not of a year's but of six months' standing), twenty-one of which recovered! Percentages were deduced from less than a quarter of a hundred units.

"I make these explanations in order that the few returns of a statistical similitude which I have presented the past and present years, may pass with the profession and with the public for their exact scientific worth. In the first years of my direction here, following the customary plan which I found existing, I made the attempt with as much care and candour as I could bring to my aid, to offer some more extended statements than have been since tried, and even held out the promise in the Report for 1838, to give a general return of the varied circumstances relating to the cases for the first twenty years of the institution. After labouring with the amplest records before me for many weeks, the project was abandoned, as neither capable of an accuracy to render it interesting to the community, and as certainly of little value to the profession. In truth, I was apprehensive that conclusions drawn from facts so uncertain, would partake quite as much of error as of truth. Unfounded opinions are of comparatively little permanent mischief in medical science, when presented merely as opinions; published with a numerical aspect, they may as false facts be of infinite injury.

Twenty-fifth Annual Report of the Friends' Asylum, near Frankford, Pa.1

This report exhibits, that this valuable institution continues to proceed as successfully as ever in its course of usefulness. Ninety-seven cases were under care during the year; of these, thirty-nine cases were admitted within the year, and the same number have been discharged.

"Of the eighteen Asylums," says the Report of the Physicians, "exclusively for the insane, in actual operation, at the present time, in the United States, that which is under your supervision was established at an earlier period than any other, with the single exception of the one at Williamsburg, Virginia. A quarter of a century has elapsed since the Friends' Asylum was opened for the reception of patients. During that period, the population of the country, and with it, the number of the insane, has been greatly augmented; that revolution which had then just commenced, in the management of those who are suffering under mental alienation, has been completed; the law of true kindness, and correct principles of physical or moral treatment, have superseded the employment of excessive corporeal restraint, coercion and punishment; with increased resources by the means of which to prosecute a practical benevolence, that true philanthropy which recognizes every fellow being as a brother or a sister, has brought into existence numerous institutions, in which the poor, as well as the rich, are made partakers of the comforts of life, and furnished with every means which may contribute to the restoration of health.

"In the improvements of Asylums corresponding with this general progress, it is believed that the one under your care, has, in a good measure, kept pace with those which have more recently been established. There are few institutions of the kind, in which the facilities for an enlightened moral treatment are

superior, if equal to those of the Asylum near Frankford.

"The garden, park, woods and fields in summer, the carpenter's and the basket maker's shop, and a course of lectures on Chemistry in winter; the library, circular rail-road and horses and carriage, at all seasons of the year, afford adequate means for occupation, recreation and amusement. In warm weather, so general is the resort to these, that during the past season, it was not an unfrequent occurrence for twenty-five of the thirty men-patients, to be entirely away from the Asylum building, distributed in the fields, at the library and elsewhere. Manual employment still proves, as heretofore, the most effectual of the 'moral means,' for the promotion of a cure in the curable, and in making those more comfortable and contented, in whom the disease appears to have become permanently established. But, while this pre-eminence is accorded to useful labour, we cannot entirely overlook the evident utility of recreation and innocent amusement. During the past season, a patient labouring under the agonizing delusions of the most abject melancholy, was admitted into the Asylum. In his opinion all mankind had been brought to 'ruin and destruction,' by the acts of himself alone. To him, the smoke ascending from a chimney, indicated the commencement of a general conflagration of the universe; a conflagration imposed upon all created things, in retribution for the sins which he had committed. By long persuasion, he was induced to assist in raking leaves, in the grove; but to his mind he gathered them for no good purpose. They were the funeral pile upon which he was to be immolated.

"The first smile which was won from this unfortunate patient, appeared while he was playing at ball, a game in which he had been induced to engage, after repeated and prolonged entreaty. From that time, his progress to recovery was constant and u nusually rapid." P. 21.

¹ Twenty-fifth Annual Report on the State of the Asylum for the Relief of Persons deprived of the Use of their Reason, 8vo, pp. 30, Philadelphia, 1842.

Proceedings of the Medical Convention of Ohio.1

It is only of late that we have received the Proceedings of the Medical Convention of Ohio, whose meetings are likely to be productive of much advantage to the profession of the West, not only by reason of the interesting papers that are read before it, but of the good fellowship that cannot fail to be engendered between the members of the profession. The highly respectable Dr. Geo. W. Boerstler, of Fairfield county, presided: and Drs. Kreider and Awl were appointed Secretaries.

Besides the proceedings of the Convention, the pamphlet before us contains sundry interesting papers read before it: viz. 1st. On diseases induced by mercury, by Dr. J. P. Harrison. 2. Report on auscultation and percussion, by Drs. Mendenhall, R. L. Howard, and C. D. Brayton. 3. Address on medical education, by Dr. J. P. Harrison. 4. Florula Lancastriensis, or a catalogue, comprising nearly all the flowering and filiform plants, growing naturally within the limits of Fairfield county, with notes of such as are medicinal, by Dr. Bigelow. 5. An address by Dr. Dawson on a form of fever which prevailed in the eastern part of Green county, &c.

Third Book of Natural History-Ornithology. By Ruschenberger.2

The third book of Natural History is worthy of being placed alongside the first and the second. Of those we have already spoken; and we may now, we presume, congratulate Dr. Ruschenberger and the publisher, that sufficient encouragement has been received to induce them to continue this interesting and instructive series.

Squarey's Agricultural Chemistry.3

This work is not strictly medical, yet it is on a department of science of which no physician can, with propriety, be ignorant. Many of our physicians, too, are compelled to be practical farmers, and to them Mr. Squarey's work will be especially useful. It is concise, clearly expressed, and contains a vast amount of valuable matter in a very small compass, and at such a price that no one can plead poverty as an excuse for not possessing it.

¹ Proceedings of the Medical Convention of Ohio, held at Columbus, on the 5th, 6th, and 7th of May, 1841; with Papers on several subjects, read before that body; 8vo. pp. 84, Columbus, 1841.

² Ruschenberger's Series; Ornithology; the Natural History of Birds: Third Book of Natural History; prepared for the use of schools and colleges, by W. S. W. Ruschenberger, M. D., &c. &c., from the text of Milne Edwards and Achille Comte, &c., &c., with plates; 12mo. pp. 125, Philadelphia, 1842.

³ A popular treatise on Agricultural Chemistry, intended for the use of the practical Farmer; by Charles Squarey, Chemist: 12mo. pp. 156, Philadelphia, 1842.

Kane's Experiments on Kiesteine.1

This paper exhibits the results of careful and accurate observation on a subject which required a series of well conducted experiments, and which we have long desired to see instituted. Dr. Kane has amply exhibited, that he was fully competent to the task, and has carried it through in a manner which will do him credit both now and hereafter; for his paper cannot fail to be cited by all who may hereafter wish to be considered on a level with the existing state of knowledge on the interesting and important department of our science of which it treats. The results of all his labours are summed up by Dr. Kane as follows:

"1. That the Kiesteine is not peculiar to pregnancy, but may occur whenever the lacteal elements are secreted without a free discharge at the mammæ.

2. That though sometimes obscurely developed, and occasionally simulated

by other pellicles, it is generally distinguishable from all others.

3. That where pregnancy is possible, the exhibition of a clearly defined kiesteinic pellicle is one of the least equivocal proofs of that condition; and

4. That when the pellicle is not formed in the more advanced stages of supposed pregnancy, the probabilities, if the female be otherwise healthy, are as 20 to 1 (81 to 4) that the prognosis is incorrect." P. 18.

On the Relations of the U.S. Medical Corps.2

This is an exceedingly temperate and well written expose of the condition of the medical officers of the Navy, whose grievances are ably stated, and, we should hope, require but to be stated to be redressed. The pamphlet cannot fail to attract the attention of the Secretary of the Navy to the subject. The position of the naval medical officer when he first appears on shipboard, it need scarcely be said, is very different from that of a youth who first enters the service as a midshipman. The one has acquired an amount of essential knowledge, which enables him in private life to assume a station not inferior to any one; and this fact should be borne in mind in the regulations of the naval and military service; yet, hitherto, it has scarcely been heeded. The author of the Exposition is evidently one of those educated gentlemen, and his statements are worthy of all attention.

New England Quarterly Journal, No. I.3

The first number of this new Periodical impresses us favorably. The Editors are gentlemen, and medical scholars; and they are supported by a long train of able co-laborers. It contains papers by Drs. Thomas Gray, jr., E. Warren, D. Humphreys Storer, E. Hale, jr., J. B. S. Jackson; Joseph Sargent, of Worcester, Geo. Hayward, J. Mason Warren, and Geo. A. Bethune: with Reviews,

2 An Exposition of the unjust and injurious relations of the U.S. Naval Medical

Corps, by a member; 8vo. pp. 22, Baltimore, 1842.

¹ Experiments on Kiesteine, with remarks on its application to the diagnosis of pregnancy. An Inaugural Dissertation for the degree of Doctor of Medicine, by Elisha K. Kane, M. D., of Philadelphia. Published by the recommendation of the Faculty of the University of Pennsylvania; 8vo. pp. 26.

³ The New England Quarterly Journal of Medicine and Surgery. Editors, Charles E. Ware, M. D., Samuel Parkman, M. D., No. I July, 1842; pp. 156, Boston, 1842.

Bibliographical Notices, Scientific Intelligence, and Extracts from Foreign and American Journals.

Surely a Journal so well supported, and supplied with excellent materials, under the guidance of able editors, cannot fail to receive every encouragement.

MISCELLANEOUS NOTICES.

[Through our friend, Professor J. K. Mitchell, we have been favored with the following announcement of the forthcoming publication of Liebig, which every lover of science will be anxious to see.]

Liebig's new work on Organic Chemistry and Physiology .- The appearance of this work is looked for with great interest by the medical profession in England, but has been delayed in consequence of new experiments and researches in which the author has been engaged. It is understood by letters from Professor Gregory of Aberdeen, who has translated the work, that it had been found necessary to cancel several of the pages, for the purpose of correcting serious errors, and of incorporating the results of the new experiments. The publication of this work under the supervision of Professor Webster, of Harvard college, at the request of the author, will be completed immediately on the reception of the corrections and additions from Dr. Liebig. from Professor Gregory, of 14th May, he says, "In my opinion this work will mark the commencement of a new era in Physiology. In translating it, I have experienced the highest admiration of the profound sagacity which has enabled Liebig to erect so very beautiful a structure on the foundation of facts which others have allowed to remain for so long utterly useless, and of the logical structure and extreme cogency of his arguments. There is hardly a point in physiology accessible to chemistry (I mean, of course, those on which experiments have been actually made) on which he has not, by the mere force of his intellect, thrown the brightest light. In short, we now feel that physiology has entered on the true path, and the results, before long, will, I prophesy, be altogether astonishing." The work is to appear in England, under the editorship of Dr. Gregory, and in this country, under that of Professor Webster, at the same time.

Castleton Medical College.—The Catalogue for the Spring Term, 1842, contains the names of seventy students: whereof there were, from Lower Canada, 3; from Massachusetts, 3; from New York, 29; from New Hampshire, 1; from Pennsylvania, 2; from Vermont, 31; and from Wisconsin, 1.

Necrology. We notice, in the foreign and domestic Journals, the deaths of several distinguished members of the Profession, whose names are well known to all our readers. For example: of Sir Charles Bell, the eminent physiologist and surgeon, at the age of 67; of Dr. Yelloly, who was at one time in great eminence in London, and subsequently settled in Norwich; of Hann, of Berlin; and of Fricke, of Hamburgh, of Devergie, of Paris; of Dr. Blake, the author of a work on Delirium Tremens; and of Dr. Oliver, lately professor in the Medical College of Ohio, and the author of a work on Physiology, which is in its second edition.

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DROPSY.

The following medicine is highly worthy the attention of practitioners of medicine. It has proved very successful in the hands of the faculty in this city.

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COMPOUND

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It was first employed by a regular physician who had been a long time a prisoner with the Indians. They gave it the name of Whahoo, and used it for the cure of general dropsies and some diseases of the lungs. G. W. Carpenter, aware of the great value of this medicine, and knowing the great importance of having it properly prepared, so as to extract all its medicinal properties, and to exhibit it in a concentrated state of uniform strength, has made a number of chemical and pharmaceutical experiments, to ascertain its proper menstruum for solution, and its chemical affinities, and, in accordance, has prepared a fluid extract, which contains all the medical properties of the Whahoo Bark in a concentrated state, &c., which he offers to the faculty as a valuable medicine for the cure of all dropsical affections.

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"To Geo. W. Carpenter, Esq.

"SIR,—A ready compliance with your request to be informed of the opinion which the trials of the 'Whahoo Bark' in the treatment of dropsical affections, has enabled me to form, is due to you, who introduced the article to my notice. I shall perhaps satisfactorily answer your desire for information, by the transmission of an extract from my notes, contributory to a paper, upon the history and medical adaptations of this native curative agent, in which I propose to lay before the profession its claims to medical attention.

"It is hydragogue, cathartic and diuretic in its operation. Its primary effects are prompt and decided, and are distinguished from the effects of other articles of equal force and power, vegetable or chemical, belonging to this class

of medicines, in being unassociated with the debility and prostration of system that too frequently attend their use.—Its influence upon the absorbent system is powerful, and transcends that exerted by any article in its integral character with which I am acquainted.

"Its value is enhanced by the assurance its use has afforded me, that it is free from the uncertainty of dose arising from the variance of strength to which the elaterium of commerce is subjected, and which renders it so equivocal in its action, that it is only employed as a dernier resource by prudent practitioners.

"I have seen as many as 30 copious watery dejections produced by the use of the 'Whahoo Bark,' daily for several days—and the measured quantity of two gallons of urinary discharge within the space of 12 hours, without inducing any perceptible debility or reduction of the force of the circulation. In two very distressing and violent cases of Dropsical disease, the one of Ascites accompanied with Hydrothorax—the other of general dropsy; its use was speedily followed by a removal of the hydropic effusion. In the former instance, a lady between 30 and 40 years of age, the manifestations of the disease had become so distressing and painful, in defiance of all the remedial treatment which had been pursued, that every expectation of relief from the immediate sufferings, except through the aid of an operation, had been abandoned. She had laboured under complicated symptoms of disease for many years, but is now restored to perfect health.

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"I am at present employing it in some cases of chronic disease, to the symptoms of which its virtues appear to be adapted, and with a promise of result, which previous experience of the curative quality of the article warrants. Its alterative power is very manifest, and will, I believe, when fully developed, entitle it to a distinguished position among the more useful and powerful reme-

dial agents of the materia medica.

"I cannot, sir, suffer this hasty communication to be closed, without an acknowledgment of the debt which curative medicine owes to you, for the indefatigable exertions you have ever made to improve the pharmacology of our country; and I would assure you, that should this medicine, upon more extensive use and general adaptation, redeem the promises of usefulness it now holds forth, that debt will be greatly increased by your agency in bringing it into notice.

Most respectfully, I am yours, &c.

F. A. VANDYKE."

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be mixed with a little sweetened water, if desirable.

This article is prepared only by the subscriber, and each bottle will have the written signature of Geo. W. Carpenter, on a label immediately on the bottle; and he would beg leave to caution the public to a careful observance of this, or they may get a spurious medicine; for as soon as he prepares anything new, he is counterfeited, or imitations attempted to be foisted off by some unprincipled members of the trade, who copy his directions and advertisement, and put up articles so as to resemble his as near as may be externally, but which are totally or essentially different in the composition or mode of preparation.

GEO. W. CARPENTER, 301 Market St. Philadelphia.







